00:18:44 Cindy Bryant: Good day, evening, morning, etc. from Springfield, MO! Please set your chat to All panelists and attendees so everyone can see your chat posts! Hello from California 00:19:00 Christina Siow Young: Hello from IL 00:19:01 Ana Guerrero: 00:19:07 Danielle Phillips: Danielle from MA Hello from Southern Maine. 00:19:08 Rachel White: good morning from philippines 00:19:08 LANY JAMERO: Emily Kavanagh: Hello from Columbia 00:19:09 Trena Wilkerson: Hello from Waco, Texas via Philadelphia MS 00:19:10 tonight! Hello from Houston TX 00:19:11 Bobby Flores: Lorie Huff: Hello from Fayetteville, Arkansas 00:19:11 Nadine Richards-Ramsey: Hello from Glen Burnie, MD 00:19:11 00:19:12 Kathleen Bliss: Hi from Albany, CA. Hannah Rooney: Hello from Worcester, MA! 00:19:12 Christina Tully: 00:19:13 hi from Las Vegas NV Arnold John Bulanadi: Hello everyone! Arnold from Jax, FL 00:19:13 Kendra Edwards: Hi from Brooklyn, NY 00:19:14 Francis Kisner: Another beautiful day in Pennsylvania 00:19:14 Marion Goetze: Hi from Vancouver, BC, Canada 00:19:15 00:19:15 Jennifer Cronin: Hello from Hanson, MA 00:19:15 Carrie Dickinson: Hey from Houston, Texas Ronald Golden: Panama City Florida 00:19:16 St. Louis, MO! William Sabor: 00:19:16 Stacie Kyhn: 00:19:16 Hey howdy from Apache Junction, AZ! 00:19:17 Susan Troutman: Hello from Texas! Hello from Hoboken! Kathy Rubendall: 00:19:17 Hello from ohio 00:19:17 Chad Hale: Kathy Felt: Hi from west central IL 00:19:17 Katherine Rossignuolo: Hello from Macungie, PA 00:19:18 hello from dana novi mi 00:19:18 dana dulzo: Renate Uhlig: Danvers, MA 00:19:18 00:19:18 Ronald Lubatti: lebanon, maine Patricia Mevers: Hello from Rogersville, TN 00:19:19 00:19:20 Vonda Hicks: La Plata, MD Hi everyone from Annapolis, MD 00:19:20 John Halmi: Melanie Weston: Hello from NC 00:19:20 Katherine Page: Hello from Richmond Virginia!!! 00:19:21 00:19:21 Lyndsey Horton: hello from San Antonio Texas 00:19:21 Joan Albers: Hello from Ohio! Sheila Webb: Hello from Reidsville NC 00:19:21 00:19:22 Rhonda Rampley: Hello from NC Hello from bay Area California 00:19:23 Viragni Chand: Hello from Waldorf MD Joe Burton: 00:19:23 Dawser Al-Adhami: Hello from Ann Arbor MI 00:19:24 Jennifer Corritore: orange park, florida 00:19:24 00:19:24 Patricia Johnston: Hello from Laurel, Md. Aleethea Middlebrooks: Atlanta, GA 00:19:25 00:19:25 Laura Semian: Hello from Sarasota, FL

Dongsheng Zhang: Hello from TX 00:19:25 Jacqueline Colbourne: Hi from Temple Hills, MD 00:19:25 Susan Dahms: Hello from Ridgecrest, CA! 00:19:26 Katherine Raiguel: Hello from Willow Grove, PA 00:19:26 Michelle from Phx, Az 00:19:26 Michelle Piacenza: MELVIN BURNETT: Hello from Greensboro, NC 00:19:26 Sheila Kirton-Robbins: Hi from Nashville, NC 00:19:27 Hello from Northampton, MA 00:19:27 Laurie Walker: Dale Pasino: Worcester, MA 00:19:27 Hello from Collierville, TN! Teaching in 00:19:27 Samantha Bustos: Shelby County Schools hi from CT! 00:19:27 Christine Bucciero: Avcan Yilmaz: Hi from New York 00:19:29 Anthony Penoro: Hello from NYC 00:19:29 Hello from Southern California 00:19:29 Scott Ing: Keisha Davis: Hi from MD! 00:19:30 Howdy! from northeast TN 00:19:30 Tina Hill: 00:19:30 Barbara McDonald-Pyle: Barbara Pyle, Harrisonburg, VA 00:19:31 Mabra Karpie: Corning NY Catherine Bronikowski: Hello from Milwaukee, WI 00:19:31 00:19:32 Mary Simmons-Chatmon: South Carolina 00:19:32 Kathy Medrick: Hello from Cleveland OH 00:19:34 Karen McMahon: Hi y'all from Houston, Tx Hi from Connecticut Nithya Soundararajan: 00:19:34 Hi from DC! 00:19:34 Vicki Bullock: Lesly Brown: 00:19:35 Hello from Knoxville, Tennessee! 00:19:36 Monica Roland: Good evening from Savannah Ga Dennis Manyanga: Hello from NC 00:19:36 00:19:36 Charese Chambers: Hello from Tennessee Douglas Steinbronn: Southern California, Rosamond. 00:19:36 Rachel Slezak: greetings from Nashville! 00:19:36 00:19:37 Patti Scharschmidt: Hello from Victoria, TX Nora Marasigan: Hello from Philippines 00:19:37 00:19:37 Tracy Benjamin: Hello from Phoenix, Arizona Catherine Livesay: Hello from Rogersville, Tennessee 00:19:38 00:19:38 Laura Partridge: Hi from Fairfax, Vermont Hello from Queens, New York 00:19:38 Mark Fili: Hello, Fayetteville, NC 00:19:39 RHONDA MAYO: Rachel Kuehnl: Normal, Illinois 00:19:39 00:19:40 Lisa Caudle: Hello, from Washington 00:19:40 Jeff Shih: hi from las vegas! Hello from Farmville, VA 00:19:41 Susan Shuart: 00:19:41 Kim Petersen: Hello from Calgary, Canada! Hello again from Globe, Arizona! 00:19:42 Dave Hankin: Hello from Kingsland Georgia Dominador Guillermo: 00:19:42 Alison Jo Frost: Hey fromWV 00:19:43 Veronica Troup: Tennessee 00:19:44 00:19:44 Queens, NYC where there was a random 10 seconds of Veronica Kwok: downpour 00:19:45 Lisa Owens: Hello from Cincinnati, Ohio!

00:19:46 Brent Perry: hello from NC!!!!!! Mary Pyke: Nova Scotia Canada 00:19:49 Rosanne Cantwell: California ;0) 00:19:50 Winnica McLean: Florida 00:19:50 Hello from Portland, OR 00:19:51 Wenny Liao: 00:19:51 Linda Baker: hello from Indiana !! Hi from North Carolina! 00:19:52 Anne Ang: Stephenia Courtney: Hello from Las Vegas, NV 00:19:53 Hi from Baton Rouge! Tanya Landry: 00:19:55 Aura Rodriguez: Hello from Montebello Unified, Los Angeles County 00:19:55 Carmelita Nalzaro: Hi from JEDDAH, SAUDI ARABIA 00:19:56 00:19:57 Elaine Dupree: Elaine Dupree Jericho, Arkansas Darvin Best: Greetings from Fredericksburg, VA! 00:19:57 Gerald Bruno From NY 00:20:00 Gerald Bruno: Melanie Carter: Hello from St. Louis, MO 00:20:01 Denise Beavers: Hello from Tennessee. 00:20:01 hello from pittsburgh 00:20:02 lee hanby: Lenora McGrath: Kentucky 00:20:03 Hello from Stockton, California 00:20:04 Tessie Menta: Ma.Cecilia Cueva: Good morning from Philippines.. 00:20:04 00:20:04 Gail Saltveit: Portland, Oregon 00:20:05 Cheri Flood: A very rainy Panama City, Florida Hello, from Annapolis, Maryland 00:20:05 Theresa Liddy: Matthew Whitemarsh: Matt from Wisconsin 00:20:07 Hi from Kansas City! 00:20:08 JoAnn Hiatt: 00:20:12 Olga Kosheleva: Hello from El Paso, TX Hello from near the home of the World Series 00:20:15 David Barnes: Champion Washington Nationals! hello from North Carolina 00:20:15 Lorie Bell: Hi from California Julie Leporiere: 00:20:16 Jennifer Henderson: Woodstock GA 00:20:17 Noe Eugenio: Hello from Philippines. 00:20:18 Monica Weese: Hello from Dallas, Texas. 00:20:20 00:20:22 CATHY SMITH: Hello from Maryland Alana Viverito: Hello from New York! 00:20:25 Sheila Kirton-Robbins: Hello Fairfax VT, UVM grad here! 00:20:27 Cheers from New Brunswick, Canada 00:20:40 Sharon Black: Hello from IL 00:20:42 Angelita Beltran: 00:20:43 Michelle Shirtcliff: Hello from Burbank, CA 00:20:51 Lynn Lafferty: Hello from Erie, PA 00:20:51 Michael McNeil: Maryland! Rodney Cooper: Hello from Killeen Texas 00:20:52 tracey simmons: Hello from Jamaica, NY 00:20:53 Rossini Ortega: Hello! From the Philippines. 00:20:54 Laura Cranmer: Hello from Colorado 00:20:55 Tanya Dewland: Hi from Tucson AZ 00:20:56 Hello from Los Angeles, CA 00:20:57 Roberto Marquez: Eva Gomez: Hello from Phoenix, Az 00:20:59 00:21:00 Angela Langenkamp: Louisville, KY

00:21:01 Felicia Phillips: Happy Thursday from the San Francisco Bay Area 00:21:04 Brianne Biddle: Hi from Panama City, FL 00:21:04 Kathryn Swartzenberg: Spring, Texas Michelle Kornitz: Milwaukee, WI 00:21:13 00:21:13 Leah Simmons: Hello from South Carolina Hello from Charlotte, NC 00:21:16 Ramona Hall: Andrew Zenker: Hello from Westchester County, NY! 00:21:27 Evangeline Pabulayan: hi and greetings from PA 00:21:27 India Puch: India from Columbia, SC 00:21:31 00:21:34 Grace Weissmann: Hello from Baltimore Hi from Etobicoke 00:21:35 peter zirnis: Jacqueline Sciortino: hello from VA 00:21:38 00:21:39 Bryan Bagala: Hi from Westchester, NY Jaclyn Murray: Hi from Atlanta, GA! 00:21:41 Shashidhar Belbase: Hello from the UAE. 00:21:45 Shonda Moore: Hello from Austin, TX 00:21:51 Lyubov Presnetsova: Hello from NoVA 00:21:52 Hello from San Antonio 00:21:52 Tiffany Jones: Debbie Grady: hi from texas 00:21:52 00:21:54 MICHAEL KAROLEWICZ: On board from Milwaukee, WI 00:21:57 KEISHA SMITH: Hello from Montgomery AL Happy Thursday from Maryland! 00:21:58 Catherine Abbott: Michael Chrzan: What up doe?! From Detroit, MI 00:22:02 Jeanetta Glass: Hello from Memphis, TN! 00:22:02 00:22:03 Dewey Gottlieb: Aloha from Hawaii! 00:22:03 Vanessa Stokes: hello from chicago! 00:22:03 Lizabeth Nicosia: Hello from Montgomery, Texas 00:22:03 Donna Misciagna: Hello from Tucson, AZ! Lakeisha Jones: Hello from Denton, TX 00:22:04 Justin Klinger: Hello from Romeoville IL 00:22:08 Janet Bernard: Florida 00:22:08 00:22:08 Rebecca Flora: from Redmond, WA 00:22:09 Rebecca Zlotnik: Hello from New Jersey Erica Hoffknecht: California - Fresno 00:22:10 Thanks 00:22:10 Terri Taylor: Patti Wallace: Hello from Austin TX 00:22:11 00:22:11 Danielle Bentley: Hello from Kansas City! Karen Pritchet: Hello from Ohio! 00:22:11 00:22:12 Jenny Sagrillo: Hello from Milwaukee 00:22:14 Jennifer Rolling: Baltimore MD - yaaaaaaaayyyyyy! Denise Griffiths: Hello from Denise Griffiths from Wilmington, 00:22:14 DE! carolina vix: Hi from NC. Pittsboro 00:22:15 Gladys Montoya: Hello from Zion, Il! 00:22:17 Adriana Delgado: Belen Jesuit Preparatory School in Miami, FL 00:22:17 Dana Nelson: Hello from PA 00:22:18 00:22:19 Lisa Nicolaisen: New York Terri Taylor: Hello from Provo, Utah 00:22:20 00:22:21 Evette Langham: Hello from Chesapeake, VA

00:22:21 Ivette Aguila: hello from Miami Florida 00:22:24 Good evening, everyone! Hi from Saint Louis, Krystal White: Missouri. Jennifer Heldenbrand: 00:22:25 Hello from Provo, UTah Heather Ruiz: Hello from San Antonio 00:22:29 00:22:32 Eric Von Valdez: Hello from Jeddah, KSA Janice Magauay: Hello from Maryland 00:22:32 Leah Cottrell: Hello from NC 00:22:34 Hi from Charlottesville, VA. 00:22:39 Denika Gum: Melonie Smith: Hello from Chicago 00:22:40 00:22:42 Gisela Vichot: from MIAMI, FLA 00:22:46 Marlene Naquin: Hello to all from Long Beach, MS Rosalyn Bantay: Hello from Philippines 🐵 00:22:49 Hi from El Cerrito, CA 00:22:54 Beth Alsberg: Patti CZAR: 00:22:58 Hello from New Jersey Anita Tyndall: Hello from VA 00:23:01 00:23:04 Mary Rose Portugal: Hello from Manila Susan Weiss: Hi Susan from Brookline, MA 00:23:08 00:23:28 Gloria Flores: Hello from Texas Margarito Valdez: Hello to all from Chicago 00:23:51 00:24:01 Ratu Ilma Indra Putri: Hi... from Indonesia 00:24:02 Shannen Bunoski: Hi from Bethany Beach, DE! Very excited for this webinar! 00:24:08 Gail Saltveit: can you help those of us who do not have smartphones? 00:24:10 Bertha Reyes-Pond: Hi from San Antonio Texas 00:24:11 Katherine Prammer: Can you provide for those oversees- message doesn't work 00:24:14 Rommel Daz: Good evening, Zambales Philippines Carole Bamford: and for those of us that don't have cell phones? 00:24:32 Hello, from Philippines 00:24:58 Tessie Menta: 00:25:05 Michelle Funai: Aloha from Honolulu, HI! Sorry, just jumped over from the AP webcast... 00:25:23 Catherine Cook: hello from San Francisco Greetings from Vikas Saxena Jaipur, India. 00:25:25 VIKAS SAXENA: 00:25:33 CATHY SMITH: I am using a desk top... is there an alternate way to get the information? 00:25:34 Jet Yeung: Hello Everyone--Jet from Henderson, Nevada Penina kamina: Hi from Oneonta NY 00:25:44 00:25:47 Emilv Kavanagh: 2 00:25:51 Catherine Bronikowski: 2 Barbara Boschmans: 00:25:51 2 Ronald Lubatti: 2 00:25:53 00:25:54 dana dulzo: x = 22 Donna Misciagna: 00:25:54 Jennifer Cronin: x = 200:25:54 Karen Pritchet: 2 00:25:54 00:25:55 Kathy Medrick: 2 Catherine Abbott: Your Digital x=2 00:25:55 00:25:55 Sharon Black: x= 2

00:25:56	Patti CZAR: 2	
00:25:56	lee hanby: 2	
00:25:56	Vonda Hicks: 2	
00:25:56	Lyubov Presnetsova:	2
00:25:58	Sheila Kirton-Robbins:	x = 2
00:25:59	India Puch: x=2	
00:25:59	Viragni Chand: x =2	
00:25:59	Idania Dorta: x=2	
00.25.59	Julie Lenoriere	x=2
00.26.00	Keisha Davis: x=2	~ =
00.26.00	Melanie Weston: 2	
00·26·01	Rachel White: $x=2$	
00.20.01	Veronica Troup: 2	
00.20.01	Mark Vasicek: 2	
00.20.01	Chark Vasicek. 2	v – 2
00.20.01		x - z
00.20.01	And Guernero, X=2	
00:26:01	Katherine Kaiguei:	X=2
00:26:02	Jenny Sagrillo: x=2	2
00:26:02	Patti Scharschmidt:	2
00:26:03	Jenniter West: $x = 2$	
00:26:03	Dennis Manyanga:	x=2
00:26:03	Lenora McGrath: x=2	
00:26:03	Donna Bergonzi: x=2	
00:26:03	Melonie Smith: x=2	
00:26:03	Christine Baccaro:	x=2
00:26:04	Rosemary Turk: x=2	
00:26:04	Carmelita Nalzaro:	X=2
00:26:05	Penina kamina: 2	
00:26:05	Leah Cottrell: x=2	
00:26:05	Rene McNeal: x=2	
00:26:05	Brent Perry: 2	
00:26:06	Janet Bernard: x = 2	
00:26:07	Arlene Smith: x=2	
00:26:08	Nithya Soundararajan:	x=2
00:26:08	Darvin Best: x=2	
00:26:09	Susan Shuart: $x = 2$	
00:26:09	Jeanetta Glass: x = 2	
00:26:09	Laura Semian: x=2	
00:26:10	Douglas Steinbronn:	x = 2
00:26:10	Carolina Obregon:	x = 2
00:26:10	bfecteau: x = 2	
00:26:11	Sheila Bishop: x=2	
00:26:11	Danielle Phillips:	x=2
00:26:11	Leah Cottrell: 11=11	
00:26:11	Marv Rose Portugal:	x=2
00:26:11	Tessie Menta: x=2	
00:26:12	Jeanne Costello:	x=2
00:26:12	Maria Woehl: 2	
00:26:12	Menchie Besa: x=2	
00.20.12	Rodney Cooper: v=2	
00.20.12	Nouney Cooper . A-2	

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00:26:13
                Kathy Felt:
                                 x=2
                Ann Marcellin:
00:26:14
                                 x=2
                MICHAEL KAROLEWICZ:
00:26:14
                                         x=2
00:26:15
                Shonel fraser: x=2
                Dawser Al-Adhami:
00:26:16
                                         x=2
                Rhonda Rampley: x = 2
00:26:16
                Gloria Flores: x = 2
00:26:18
                Elaine Dupree: x=2
00:26:19
                Catherine Livesay:
00:26:19
                                         x=2
                Maria Sanchez-Gallardo: x=2
00:26:20
                Denika Gum:
                                 x=2
00:26:20
00:26:21
                Nadine Richards-Ramsey: x =2
                Stephenia Courtney:
00:26:21
                                         x = 2
00:26:22
                Stacy Haines:
                                 The 44222 isn't working for me.
00:26:23
                Bobby Flores:
                                 x=2
00:26:23
                Laura Ryan:
                                 x=5
                Derrick Johsnon:
00:26:24
                                         x=2
00:26:25
                Evette Langham: x = 2
00:26:26
                Mary O'Sullivan:
                                         2
                                         Love the "border as countdown timer"!
                Felicia Phillips:
00:26:28
00:26:29
                Angela Short:
                                 x=2
00:26:30
                Tsungai Chiorera:
                                         Good evening. This is Tsungai Chiorera from
Phoenix, AZ
00:26:32
                LaDonna Schwab: x=2
                                 X+2
00:26:37
                Jet Yeung:
00:26:37
                Dave Hankin:
                                 No
00:26:42
                Catherine Abbott:
                                         NOPE....because they can guess
00:26:43
                Laura Semian:
                                 deep understanding? unfortunately, no
00:26:44
                Arlene Smith:
                                 No
                                         It could be just procedural understanding
00:26:45
                Mary Rose Portugal:
                LaDonna Schwab: Hello from Texas
00:26:48
00:26:48
                Emily Kavanagh: No
                Isabel Arcaya:
00:26:54
                                 x=2
00:26:56
                Maria Woehl:
                                 Hi from sunny San Diego, CA!!
00:27:03
                Laura Ryan:
                                 x=2
00:27:15
                Catherine Abbott:
                                         John's name is misspelled.
                Lindsav Foster: Hello from Tennessee!
00:27:26
00:27:52
                Steven Jarowski:
                                          Schrödinger ?
                Essence Brice: Hello from Mobile, AL!
00:27:57
                Stephenia Courtney:
                                         x = I - 2I
00:28:03
00:28:10
                Cindy Bryant:
                                 Please set your chat to All panelists and attendees
so everyone can see your chat posts.
00:28:11
                Catherine Abbott:
                                         As in Schrodinger's cate?
00:28:37
                Laura Semian:
                                 yes
                Stacie Kyhn:
00:28:37
                                 yes
00:28:40
                Patricia Daugherty:
                                         yes
00:28:40
                CATHY SMITH:
                                 yes
00:28:41
                Stephenia Courtney:
                                         yes
                Kathleen Bliss: looks like
00:28:41
00:28:42
                Patti Scharschmidt:
                                         Answers questions but doesn't know what he
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Donna Bergonzi: yup 00:28:43 Christina Siow Young: 00:28:44 This is a great analogy! 00:28:45 CATHY SMITH: no 00:28:46 Laura Semian: no Donna Bergonzi: nope 00:28:47 00:28:47 Kathleen Bliss: no way Ronald Golden: 00:28:48 no Stacie Kyhn: 00:28:48 no 00:28:49 Kellie Hammett: no 00:28:49 Patricia Daugherty: no 00:28:50 Catherine Livesay: no Catherine Abbott: No...he guessed 00:28:50 00:28:51 Vonda Hicks: no 00:28:52 Derrick Johsnon: no 00:29:00 Tessie Menta: no 00:29:00 Laura Semian: great analogy 00:29:06 Steven Jarowski: Yes. He both speaks and doesn't speak Chinese Steven Jarowski: Less morbid 00:29:15 00:29:23 Donna Bergonzi: That was me too! 00:29:31 Laura Semian: hence... "robot" ;) Participants from the Philippines - kindly 00:29:49 Arnold John Bulanadi: send an email to me at ajbulanadi@gmail.com, and I will forward it to you. I received already the email re: resources from the presenter/lecturer. 00:29:55 CATHY SMITH: yes 00:30:00 Stephenia Courtney: yes she does She thought you understood it. 00:30:00 Catherine Livesay: 00:30:05 Catherine Abbott: I felt like that during the first half of trigonomety CATHY SMITH: not completely 00:30:11 00:30:22 you're not alone Laura Semian: 00:30:23 Catherine Livesay: You didn't think that you understood it. 00:30:45 Lizabeth Nicosia: This is my whole career concern - students can't / don't / won't make connections between concepts 00:30:45 Mark Fili: Preach!!! Catherine Abbott: I discovered that my Grade 8 students did 00:31:00 not understand functions. They were great at procedures. Cindy Bryant: be sure to type norobots in the message 00:31:23 00:31:24 WARA SABON DOMINIKUS: hello from Indonesia 00:31:38 Alma Miho: Carol Stream, IL Sorry, the 44222 only works for US people. 00:32:12 Robert Kaplinsky: If you're international, I'll give you another method at the end. Lindsay McCrary: 00:32:26 love this 00:32:27 Emily Kavanagh: Great examples Adriana Gómez Reyes: 00:32:27 2,5,1,7 44222 and message norobots worked for me. 00:32:35 Cindy Bryant: 00:32:43 Cindy Bryant: Please set your chat to All panelists and attendees so everyone can see your chat posts. 00:33:06 lee hanby: 44222 did not work for me

savs

00:33:09 Ali Alhamdi: there are endless possibilities to x>0 or x<0 00:33:24 Robert Kaplinsky: Sorry, the 44222 only works for US people. If you're international, I'll give you another method at the end. 00:33:34 Catherine Abbott: How can you have one x positive and the other x negative in the same equation? 00:33:42 Sharon Black: Thank you Robert!! Adriana Gómez Reves: 2,7,1,5 for negative x 00:33:42 Catherine Abbott: Nevermind....two equations. 00:33:48 Sheila Kirton-Robbins: Solving for x 00:33:48 recycle the numbers 00:33:49 Maria Woehl: 00:33:50 Teresa Bulanda: are we talking equations or expressions 00:33:58 Dawser Al-Adhami: X>0 Ronald Golden: 2435 00:34:11 00:34:14 Nithva Soundararaian: Its a great exercise 00:34:17 dana dulzo: 3,2,2,4 for the positive x and 1,7,2,9 for the negative x Mark Vasicek: 1x+4=3x+8 5x+6=7x+2 00:34:20 00:34:27 Catherine Cook: 4521 and 4125 7x + 8 = 5x + 200:34:28 Jennifer Cronin: 00:34:34 Lizabeth Nicosia: I gave a question like this (but just a 2 step) to my Algebra 1 students and they totally freaked out. They couldn't understand the "right" answer Shonel fraser: 2x + 8 = 4x + 600:34:39 Laura Semian: some would LOVE it!!! 00:34:51 00:34:52 Shannen Bunoski: 7x + 8 = 5x + 200:34:56 Ali Alhamdi: there are endless possibilities 00:35:05 Maria Woehl: 2,7,4,9 and 2,9,4,7 00:35:07 Catherine Abbott: My grade 6 students ... not so much. Mary O'Sullivan: love open middle problems 00:35:10 00:35:14 Laura Ryan: 2x+3=-2x+5Monica LaCelle: agree Mary 00:35:37 00:35:38 Bobby Flores: 9x+2=1x+8 positive, 4x+3=5x+7 negative 00:35:40 Melonie Smith: 3x + 2 = 4x + 5; x = -3 and 5x + 4 = 2x + 7; x = 1Tammy McClure: correct: begin with x =00:36:08 00:36:16 Grace Weissmann: Correct: Doubling William Sabor: CORRECT: Solve ax + b = cx + d for x. 00:36:27 Mohamed T: Hi everyone , This is Mohamed from CT 00:36:27 Anita Tyndall: CORRECT 00:36:28 00:36:32 Kathleen Bliss: CORRECT: decide on the value of x first, then fit coefficients and constants to make a true equation Michael Chrzan: CORRECT: Guess and Check 00:36:33 00:36:34 Stacy Haines: To get a positive answer you need to have the greater amount of x's with the smaller number, Then to get a negative number, you need to have the greater x's with the greater number and the smaller number of x's with the smaller number Nithya Soundararajan: "CORRECT: plug in two different numbers for 00:36:35 the coefficient of x and choose a value for x; then fill the other number." Catherine Abbott: CORRECT: set x = 1. then find numbers to 00:36:37 make equation true. Then set x = -1 then find number to make equation true.

00:36:40 Patti Wallace: INCORRECT: put bug numbers on one side and small numbers on left side to get positive Selene Hurley: **INCORRECT:** using opposites 00:36:43 CORRECT: Begin with a x value 00:36:43 Tiffany Jones: Dineica Davis: Correct: start with the answer for x and work 00:36:44 backwards Laura Semian: CORRECT: guess and check 00:36:44 Gloria Flores: Guess & Check 00:36:44 Shonda Moore: CORRECT: bigger x + const on one side 00:36:45 STUCK: They'll get a fraction 00:36:45 Kathy Felt: Incorrect: filling in the boxes randomly first 00:36:45 Stacy Taylor: CATHY SMITH: CORRECT: set a value for x, then fill in the other 00:36:46 numbers Tammy McClure: stuck: assign an unknown(letter) for each box 00:36:46 Jennifer Cronin: 00:36:49 CORRECT: work backwards janine addison: CORRECT: big numbers all on one side of the 00:36:50 equation. Smaller numbers on the other. 00:36:51 Regina Williams: CORRECT: TRIAL AND ERROR Ronald Golden: one number apart for larger numbers on same side for 00:36:51 negative and opposite for positive 00:36:55 Krystal White: CORRECT: keeping the same coefficient values for each equation, but changing the constant terms from one equation to the next; or swap the constant terms from the left side to the right side of the equation CORRECT: use the same coefficients when trying to 00:36:57 Maria Woehl: solve for a positive and negative answer Felicia Phillips: CORRECT: Re-read the problem to make sure 00:36:58 you know what you're being asked to do 00:37:00 Christine Bucciero: CORRECT: pick coefficients first 00:37:00 Julie Wankel: Correct working backwards Rosanne Cantwell: Correct: guess and check 00:37:01 Janice Magauay: Correct: trial and error strategy 00:37:02 Katherine Rossignuolo: stuck if they don't know how to make both 00:37:07 sides equal 00:37:07 Kathleen Bliss: INCORRECT: randomly try things Catherine Livesay: Correct: guess and check 00:37:07 Anita Tyndall: INCORRECT: Try putting in just random numbers 00:37:12 Jennifer Cronin: INCORRECT: randomly plug in 00:37:17 Charese Chambers: STUCK: they haven't learned about integeres 00:37:17 00:37:18 Kellie Hammett: correct: work backwards 00:37:18 Laura Semian: STUCK: having to use numbers other than 1-9 00:37:18 Vonda Hicks: CORRECT: Solve for x, First set x = 1**INCORRECT: INVERSE OPERATIONS** 00:37:19 Regina Williams: 00:37:21 Christine Baccaro: CORRECT: pick coefficients first 00:37:21 Tiffany Jones: Correct: Add to both sides INCORRECT: just filling in any numbers 00:37:23 CATHY SMITH: Catherine Abbott: INCORRECT or STUCK: Guess check revise. At 00:37:24 least very slow and depends on luck. 00:37:28 correct: combine like terms to solve for Kathryn Swartzenberg: positive x; then manipulate constant to be positive for problem #1 and negative for problem #2

00:37:28 Debra McClure: CORRECT: guess and check Stephanie Bernabe: Stuck: getting 0 00:37:30 Katherine Rossignuolo: correct solve one side first and then 00:37:31 determine how to get x on the other sides of the equal sign Tracy Benjamin: INCORRECT: fraction answer; they'll think they 00:37:32 obtained wrong answer; but it was actually correct Catherine Cook: Stuck: don't know how to add and subtract positive 00:37:34 and negative numbers Incorrect: put numbers in and not work them out to 00:37:35 Sharon Black: see if they work 00:37:36 Rachel Slezak: STUCK: needing2 of the sameigit and giving up Rosemary Turk: CORRECT: Switch sides of the coefficients with x 00:37:38 Mary Rose Portugal: draw two equal length of bars to represent 00:37:38 each side of the equation and work from there 00:37:38 Lyubov Presnetsova: CORRECT: Use properties of Equalities to get positive coeff in front of x and balance constant to give you either pos or neg number on the other side Michael Chrzan: Interesting that some of us think guess and check is 00:37:39 correct while others thing incorrect JoAnn Hiatt: CORRECT: Used x values that would give me 1x and 00:37:41 then 2x; watched my signs when I take the numbers to the other side. 00:37:44 Donna Bergonzi: CORRECT: Choose coefficients for x that will result in 1x when simplified (such as 6x and 5x). 00:37:45 Kate Burstein: Correct: Use same coefficients and constants, solve for x, then use trial and error to rearrange the terms to solve for x with an opposite value 00:37:49 Margarito Valdez: INCORRECT: not understanding the instructions 00:37:52 Rebecca Zlotnik: CORRECT: guess and check, then observe similarities between the 2 equations Christine Baccaro: 00:37:53 INCORRECT: randomly pick numbers 00:37:53 Jennifer Cronin: INCORRECT: not thinking about why an answer was wrong 00:37:54 MELVIN BURNETT: INCORRECT is giving up and not consulting others Catherine Doiron: Didn't it say to use 1-9 00:37:56 00:37:56 Denika Gum: CORRECT: Start w/ Coefficients 00:37:57 Shonda Moore: No, vou can't get x=0Not if you use four different numbers 00:37:58 Mark Phipps: 00:37:59 Emily Kavanagh: INCORRECT: choosing random numbers Teresa Gill: 00:38:01 CORRECT: Choose a value for x first. Then add a number to one side to see what it equals. Use that information to determine what value goes on the other side of the equation If the student does not feel comfortable with 00:38:05 Belen Zavala: integers then this will be a difficult problem Correct : use guess and check, do you see a pattern dana dulzo: 00:38:07 00:38:09 take the x to one side and the numbers to the other Isabel Arcaya: Krystal White: STUCK: getting infinite solutions (identity) or, 00:38:10 more likely, no solutions (inconsistent) Viragni Chand: Stuck using same number for coefficient of x. 00:38:10 00:38:11 Kate Burstein: Incorrect: Use negative numbers instead of sticking

with numbers from 1 - 9 Patti Wallace: CORRECT: start with one larger x smaller then the 00:38:12 other then work with the constants to make positive or negatice Kathleen Bliss: STUCK: don't know how to calculate the expressions 00:38:14 on each side 00:38:19 Brenda Wagner: CORRECT: substitute variables so ax+b=cx+d, then solve for x. x=(d-b)/(a-c). To make a positive number, d-b and a-c must either be both positive or both negative. To get a negative result, either a-c or d-b must be negative but not both. 00:38:19 Laura Partridge: STUCK: Have numbers that work, but make error when checking solution so think they are wrong. STUCK: Students may want to use two digits Felicia Phillips: 00:38:20 for the constant terms in order to get the right answer 00:38:21 Catherine Abbott: x cannot equal 0 because the constants on both sides are different. Ronald Golden: not if you don't repeat a number 00:38:21 incorrect: combine like terms 00:38:28 Bertha Reves-Pond: JoAnn Hiatt: INCORRECT: Randomly trying numbers after the first 00:38:30 solution. Susan Weiss: CORECT: Pick the blank spots with numbers and solve 00:38:31 and then see how to switch the numbers to the opposite of negative and of what you have. 00:38:37 Dominador Guillermo: CORRECT: as long as the right side has a bigger x coefficient and smaller constant, the answer will be negative. yes... almost makes them WANT to use algebra! Laura Semian: 00:38:37 beth blumberg: CORRECT: pixk a value for x and then start and 00:38:37 solve the first side.... the use the x value for the second side, and adjust 00:38:38 Belen Zavala: correct: using number sense 00:38:39 Nithya Soundararajan: I can't think there could be an incorrect way - I would personally want to see if any method wprks Donna Bergonzi: STUCK: Thinking that you need two equivalent 00:38:39 expressions on both sides of the equal sign. Stacie Kyhn: Guess-check and adjust 00:38:40 00:38:40 Debra McClure: STUCK not understanding how to solve problem Maria Woehl: INCORRECT: students will add the coefficient and the 00:38:41 constant on one side Carmelita Nalzaro: CORRECT: Combine similar terms INCORRECT: 00:38:42 Deal with variables - how to combine them 00:38:47 Sonia Calantropio: Rearrange the constants to change from pos to neg or vice versa. 00:38:49 Catherine Livesay: Stuck: If they don't remember the sign of the number changes when it crosses the = sign. 00:38:50 Michael Chrzan: STUCK: Try plugging numbers in for x Incorrect : Keep trying numbers 00:38:52 Jet Yeung: Also....the condition says x is between 1 to 00:39:04 Catherine Abbott: 9 00:39:30 Shonel fraser: Change the position of the numbers 00:39:34 Felicia Phillips: Reminds me of sudoku Jennifer Cronin: CORRECT: think about where to put the "big" 00:39:42 and "small" digits

00:39:43 Ronald Golden: switch the contants Krystal White: change the position of the constant terms; keep the 00:39:44 coefficients where they were 00:39:46 Cynthia Holliday: Correct: Just switch the constant terms to get the opposite answser 00:39:54 Roberto Marquez: Anyone familiar with Marcy Cook tile activities? Leah Cottrell: Correct: start by choosing value for x first, focus 00:39:56 on left side then right and balance Catherine Abbott: START WITH x value 00:40:00 CORRECT: Start with your first problem. 00:40:10 Renate Uhlig: Correct: understanding how the equations are 00:40:33 Sharon Black: balanced 00:41:00 Laura Semian: graphing it is an interesting take... 00:41:22 Keisha Davis: Systems in Alg 2 photo math apps! ;) 00:41:36 Laura Semian: 00:42:20 Lyubov Presnetsova: Chinese box Laura Semian: students who robotically are doing it... 00:42:24 00:42:33 Sharon Black: they are in the Chinese box Gail Saltveit: or they don't want to try? 00:42:37 00:42:38 Alison Jo Frost: The group that could perform the algorithm but couldn't parse the open ended question 00:42:43 Susan Shuart: It's higher level thinking. 00:42:47 Stephenia Courtney: no understanding sait, were there no 20% Kids who got problem 2? 00:42:49 Rachel Slezak: 00:42:56 Emily Kavanagh: I agree 00:43:02 Rachel Slezak: wait* 00:43:24 Emily Kavanagh: The difficulty of the problem 00:43:27 Maria Woehl: it skews the results Alison Jo Frost: Drill and kill 00:43:29 CATHY SMITH: if it does not require critical thinking, we won't 00:43:30 know for sure. 00:43:31 Are we helping students learn the material Danielle Phillips: 00:43:32 Donna Bergonzi: We need more open ended questions to get a better idea of student understanding. 00:43:33 Anupama Anand: authenticity 00:43:34 Catherine Doiron: Wait. What is the Chinese box? Sheila Kirton-Robbins: can be too easy/hard 00:43:35 00:43:35 Michael Chrzan: The problems we pick determine the thinking we see from students. 00:43:38 Mark Vasicek: higher order thinking questions ability to explain what they are doing ... 00:43:38 Laura Semian: 00:43:40 Stephenia Courtney: inde Prior knowledge 00:43:40 Charese Chambers: 00:43:43 Yini Wang: the openness of problems important to use both type 1 and type 2 problems so 00:43:45 Susan Danskin: you can look for the students in the red gap 00:43:46 Cindy Luper: We need more open middle 00:43:47 drill to death Keisha Davis: 00:43:48 Jennifer Cronin: The ability of students to "manipulate"

elements in the problem to make it work 00:43:49 Kate Burstein: It's really important to find low floor high ceiling tasks so students have both accessibility and challenge, and we can really determine student understanding. We tech process. Shonda Moore: 00:43:49 00:43:49 Catherine Cook: if we ask for the how and way not just the what 00:43:49 Andrea Francis: open questions We have to use some problems that don't give 00:43:49 Kathy Felt: Pick a problem that could have multiple approaches 00:43:49 Susan Weiss: Also ask students to reword the problem. to solve. 00:43:50 Vonda Hicks: Reasoning 00:43:50 Grace Weissmann: It can encourage robotic thinking instead of mathematical thinking or visa versa 00:43:50 Janice Magauay: different Level of difficulty 00:43:51 Jennifer Decker: Higher order of thinking problems? Belen Zavala: The problems should be able to be attainable for all 00:43:51 students. Low floor high ceiling problems Suzannah Young: open ended vs closed 00:43:52 00:43:53 Linda Baker: do they require students to think not just imitate Stephanie Bernabe: Tiered problems 00:43:53 00:43:55 Laura Semian: ability to detect errors 00:43:55 Ming Ho: If we only use routine problems, then we are not going to identify which students are in the Chinese Room. Janet Bernard: The difficulty of the problem. 00:43:55 Kathleen Bliss: not too predicable 00:43:57 Alison Jo Frost: so then you need justification and 00:43:58 challenging students to discuss 00:43:58 Viragni Chand: Application problems Tracy Benjamin: Yes, more open-ended questions!! I need to do better 00:43:58 about this. Dineica Davis: Prior knowledge 00:44:00 where is the problem on the DOK chart 00:44:00 Tom Litwinowicz: If teach a very specific algorithm for solving a 00:44:00 Brenda Wagner: problem and then test to see if they can follow that algorithm Laura Cranmer: Need an open ended problem and the ability to have 00:44:01 the conversation about the problem Stephenia Courtney: 00:44:01 explaining not just answers 00:44:02 Christine Baccaro: Can they explain their process Ann Marcellin: We have to be mindful to choose problems that 00:44:03 require deeper thinking and understanding You have to ask a variety of types of 00:44:05 Catherine Livesay: questions. 00:44:05 JoAnn Hiatt: Ask them to create (Bloom's highest level) problems to get the best understanding. I feel that only having one answer hides many Mark Phipps: 00:44:07 students with a shallow understanding If you ask very basic questions requiring a simple 00:44:08 Dave Hankin: numerical answer, you get very little insight into student comprehension. Alana Viverito: It affects procedural fluency vs conceptual 00:44:09 understanding- it is hard to know if the students actually understand what the

computations mean 00:44:11 The open ended nature of this problem Leena Guttal: 00:44:11 Gabrielle Kisner: We need to offer them questions where they can have unique answers and all be correct - shows their ability to think independently. 00:44:11 Anupama Anand: thought based or critical thinking Sharon Black: closed vs open ended auestions 00:44:12 Nithya Soundararajan: Open ended questions like write a story 00:44:12 about an equation - or explain the thought process might help us identify the kids who are almost there 00:44:13 Heather Ruiz: use error analysis as a question 00:44:16 Melody Sutton: focus on thinking/strategies, not just the answer Kathy Felt: We have to pick some problems that don't give 00:44:17 "Pretty" answers so they have to think 00:44:17 Keisha Davis: bloom's taxonomy 00:44:18 Sonia Calantropio: The 33% are a the kiddos who cant apply the math to a real situation. Lorie Huff: 00:44:18 When correct answers are more important than thinking and understanding Felicia Phillips: We need to consider presenting a progression 00:44:18 of problems with increasing complexity 00:44:19 Dominador Guillermo: We always give the premium to asking questions that draw out from students the reasoning and sense making of problems. Debra McClure: If students understand the process or the actual 00:44:19 mathematics 00:44:20 Kate Burstein: Problems that ask students to show at least two different strategies for finding solutions 00:44:20 Veronica Kwok: Some problems train students to solve questions a certain way (ROBOTICALLY) while others don't ask students to solve something a certain way and allow them freedom to reason with how they are getting their answers Debbie Meaney: The level of questions we choose determines the 00:44:20 level of knowledge represented. 00:44:21 Shonel fraser: The level of difficulty gives us a chance to really measure students' understanding of a concept. Lesly Brown: Students find they do not have enough background or 00:44:24 prior knowledge to comprehend and answer. Kathleen Boyle: Focusing on asking questions where I ask students to 00:44:25 make up problems that fit specific criteria helps me know if they truly understand; for example make up a quadratic that will only have one root. How do you know? 00:44:26 Elaine Dupree: usually they dont unless i assign some HOT problems maybe 1 or 2 Jessica Fine: Teaching and testing algorithms = robots 00:44:26 00:44:26 Kathleen Bliss: can't be solved with simple algorithm does not completely reflect students' learning 00:44:26 Ana Guerrero: Patti Scharschmidt: They either make kids think hard for a 00:44:26 solution or allow kids to regurgitate solutions based on steps they've learned Use open-ended problems with multiple pathways and 00:44:28 Nonye Obiora: representation Catherine Doiron: What is the Chinese Room? 00:44:29 00:44:29 dana dulzo: the problems we pick determine the conversation we

have in class. If the problems are simply problems with one answer we get no discussion. 00:44:30 Joan Albers: need logical thinking to solve Algorithms can be memorized. Picking 00:44:31 William Sabor: non-algorithmic problems allows us to check for deep understanding. The goal can't be "Here's how you solve all problems like this." Rachel Slezak: we need to asses in multiple ways and encourage Kids 00:44:34 to explain their reasoning Always use the word "why" something happens in a Patti CZAR: 00:44:35 process question 00:44:35 Catherine Abbott: If we pick questions that can be answered by blindly following a procedure, then we don't know if they truly understand what they are doing. Asking questions that require thinking outside the box, wile help us all understand better. 00:44:36 Vonda Hicks: Critical Thinking 00:44:36 Susan Shuart: We can choose open-ended questions or questions with more than one entry point. 00:44:39 Susan Weiss: Ask for them to make up problems which they could solve. 00:44:42 Keisha Davis: again.. phoyomath Katherine Rossignuolo: if they can follow the steps of a previous 00:44:42 problem we need to dig deeper by using higher order thinking 00:44:44 Leah Cottrell: questions 00:44:45 Brenda Wagner: If they can ask Siri Julie Wankel: 00:44:45 we need to drill but also have higher order thinking to 00:44:46 Renate Uhlig: Having students create problems is higher in Bloom's. Leena Guttal: Ask them to explain 00:44:50 Anita Tyndall: The more open ended the problem the more students 00:44:51 have ability to solve in multiple ways. Often it may not be just the problem but their ability to explain what they did and why. 00:44:51 Gloria Flores: Teaching just the strategies 00:44:59 Focus on students learning how to derive formulas Kate Burstein: from open-ended tasks rather than providing formulas and having them memorize Jennifer Decker: Some days I feel like I am in the Chinese 00:45:03 room. 00:45:07 MICHAEL KAROLEWICZ: The problems should not connect to what we know they have practiced. Katherine Rossignuolo: They need productive struggle 00:45:09 When we teach a specific algorithm the students 00:45:12 Cindy Luper: can't transfer. Evette Langham: Unfortunately due to high stakes testing, we don't 00:45:13 Especially if the entire department is expected to be doing the really get to pick. exact same thing. (Speaking from experience, not just saying.) Laura Semian: error analysis 00:45:14 By picking closed questions, we limit our students' 00:45:19 bfecteau: thinking and answers. Open middle questions allow students to determine divergent answers and think creatively.

00:45:20 Sheila Kirton-Robbins: relate to their lives 00:45:22 Kathy Felt: Get students talking about the math 00:45:22 Sonia Calantropio: Math is useless if you cant apply it. 00:45:22 Shawn Roberts: We have to pick problems that make students think about many different ways to solve a problem not just problems where they repeat back to us what we have shown them. Monica LaCelle: could they get the "right" answer by doing the 00:45:24 "wrong" math? Winnica McLean: It allows for us to see where students are with 00:45:24 there understanding 00:45:32 Debra McClure: We need to help facilitate the understanding behind the process. why does it work? Veronica Kwok: Some problems focus on finding a single correct 00:45:36 solution while others ask students to use their brain Yes Jennifer.... some teachers, including me 00:45:36 Jennifer Rolling: are in the Chinese room, either sometimes or often. :) Ronald Lubatti: we use eureka math and follow the program 00:45:43 00:45:47 Sharon Baltzer: Students need to know why they do the problem, not just how to solve the problem. Ronald Golden: also measuring how well they follow instructions. 00:45:47 00:45:50 Vonda Hicks: Have students reflect on their answers and why 00:46:11 Elaine Dupree: 1-60? my students are not going to do that many be careful with assigning TOO much... don't want a 00:46:15 Laura Semian: student practicing something incorrectly OVER and OVER and OVER... hard to "undo" Ronald Lubatti: for e-math, we are not permitted to stray from the 00:46:43 program 00:46:58 Kate Burstein: Nor practicing the same thing over and over again if they get it right away 00:47:02 Laura Semian: me too!!! Loved those books Catherine Abbott: I loved the choose your own adventure books! 00:47:08 00:47:17 Catherine Cook: supplement with math talks 00:47:28 Cindy Luper: Cool analogy. 00:47:50 Walter Shaner: Hello from Auckland, New Zealand! 00:48:03 Kate Burstein: even having students map out a chart like this would be an awesome task---with question of how many possible stories are in the book experience 00:48:03 Stephenia Courtney: Of course, you can cheat with read your own Catherine Abbott: 00:48:06 adventure booksfind your favorite ending and reverse engineer the plot. Laura Semian: this would be great for combinations/permutations 00:48:21 00:48:27 Laura Semian: thanks for the idea 00:48:34 Lynda Krivansky: I love the connections to stories and novels that you are making Michael Farina: I love these books. favorite as a kid 00:48:54 How do the Charlotte 00:48:56 Danielle Phillips: great analogies: Chinese room and choose your own Lorie Huff: 00:49:15 adventure book Alison Jo Frost: Do it ahead of time 00:49:26 Jennifer Cronin: Do it first 00:49:27 You would get the same answers if they 00:49:30 Catherine Livesay: worked the problems correctly

rachael steward: 00:49:31 do it Brenda Wagner: do it 00:49:32 Tamara Stewart: Do it ahead 00:49:32 00:49:33 Cvnthia Hollidav: Do it first Nicole Walden: do it 00:49:33 00:49:33 Tiffany Jones: Do it Catherine Cook: always do all assignments first 00:49:33 Do it ahead of time 00:49:34 Ana Guerrero: Do it 00:49:34 Mark Phipps: do it 00:49:34 Sheila Bishop: Selene Hurley: Do it first 00:49:34 00:49:34 Leah Cottrell: do it Rosemary Turk: Do it first 00:49:34 00:49:35 Katherine Raiguel: do it 00:49:35 Kathleen Bliss: do it do it Theresa Raftery: 00:49:35 00:49:36 Evette Langham: Do it Xen McCoy: Do it 00:49:36 Do it first 00:49:36 Jill Johnson: Angelita Beltran: Do it 00:49:36 00:49:37 Carolina Obregon: do it 00:49:38 Isabel Arcaya: do it 00:49:38 Julie Leporiere: Do it Ann Marcellin: 00:49:38 Do it Kathy Rubendall: Do it 00:49:38 00:49:38 dana dulzo: wait 00:49:38 Shonda Moore: Do it! 00:49:39 CATHY SMITH: do it ahead of time 00:49:39 Stephenia Courtney: do it prior Felicia Phillips: Do it 00:49:39 Do it first Laura Cranmer: 00:49:39 Yini Wang: do it 00:49:39 Stephanie Bernabe: do it 00:49:39 00:49:39 Julie Wankel: do it MICHAEL KAROLEWICZ: do it 00:49:39 do it first 00:49:39 Sharon Black: 00:49:39 Tracy Benjamin: Do it Do it 00:49:40 Danielle Phillips: beth blumberg: Do It! 00:49:41 Kate Burstein: Do it 00:49:41 00:49:41 Robyn Graziano: Do it Gloria Flores: 00:49:42 Do it 00:49:42 Donna Misciagna: Do it. 00:49:42 carolina vix: Do it PALOMA CARRERA-ANDINO: do it 00:49:42 Laura Semian: do it... ALWAYS do it 00:49:42 Veronica Troup: wait 00:49:42 00:49:42 Joe Burton: Wait Rhonda Rampley: do it 00:49:43 00:49:43 Derrick Johsnon: Do it

00:49:43 Dave Hankin: Do it... Erica Krick: wait 00:49:43 Carly Jardinier: Do it 00:49:43 do it ahead 00:49:43 Jennifer Collier: Donna Bergonzi: Wait 00:49:43 00:49:44 Jennifer Heldenbrand: do it Monica LaCelle: do it 00:49:44 Karen Pritchet: Do it 00:49:44 do it first 00:49:44 Lisa Cady: Wendy Janerico: do it 00:49:44 00:49:44 Sheila Kirton-Robbins: do it 00:49:44 Maria Woehl: I always do it first Patricia Daugherty: I always do the work first. 00:49:45 00:49:45 Leena Guttal: Do it first 00:49:45 Joseph Prevost: do it Patti Scharschmidt: Wait 00:49:45 Shawn Roberts: Wait 00:49:45 Danielle Dalessio: wait 00:49:45 00:49:45 Janet Mahedy: wait Barbara McDonald-Pyle: Do it 00:49:46 00:49:46 Janet Bernard: Do it first. 00:49:46 Shervl Rivera: do it do it! 00:49:46 Sonia Calantropio: do it 00:49:46 Lyubov Presnetsova: Tammy McClure: Do it 00:49:46 00:49:47 lee hanby: do it 00:49:47 bfecteau: Do it prior Do it first 00:49:47 Christine Baccaro: 00:49:47 Michael Chrzan: Wait Alana Viverito: do it 00:49:47 Do it first Dennis Manyanga: 00:49:48 00:49:48 Beth Alsberg: wait Susan Shuart: 00:49:48 wait 00:49:48 Dineica Davis: do it Darvin Best: Do it 00:49:48 Do it ahead of time. 00:49:48 Jeanne Costello: 00:49:49 Anita Tvndall: do it Laurie Walker: do it 00:49:49 Deborah Eberhardt: di it 00:49:49 00:49:49 Susan Danskin: do it 00:49:49 Viragni Chand: Do it before assigning to students MELVIN BURNETT: do it and check answer key 00:49:49 00:49:50 Belen Zavala: do it 00:49:50 Melonie Smith: Wait Debra McClure: do it to anticipate questions and sticking points 00:49:50 Catherine Bronikowski: 00:49:50 wait Brianne Biddle: Do it 00:49:51 00:49:52 Lizabeth Nicosia: Do it do it first 00:49:52 Laura Ryan: 00:49:52 Lindsay Foster: Do it

00:49:53 Connie Peters: do it first Lol- often would wait if I resort to a worksheet Heather Ruiz: 00:49:53 Michael Farina: do it 00:49:53 00:49:54 Rachel Slezak: do it (intellectual prep!) 00:49:54 carolina vix: Do it 00:49:55 Lenora McGrath: do it Jennifer Decker: do it 00:49:55 Ali Alhamdi: do it before students 100ks at them 00:49:55 Angela Langenkamp: do it 00:49:56 00:49:57 Ming Ho: Wait. Kendra Edwards: wait 00:49:58 00:49:58 Catherine Livesay: do it Justin Klinger: wait 00:49:59 00:50:00 Susan Weiss: wait do about half 00:50:01 Cristy Holtzclaw: Joan Albers: do it several ways if can 00:50:02 00:50:02 peter zirnis: wait as you do it wait 00:50:03 Brittany Miller: Almost always do it first 00:50:03 Christine Bucciero: Ronald Lubatti: ves 00:50:04 Catherine Abbott: A yeti would make the worksheet more 00:50:06 entertaining. 00:50:08 Kathleen Bliss: depends. could be terrible. 00:50:09 CATHY SMITH: know where students may struggle Danielle Phillips: 00:50:09 Expectations are set 00:50:09 Nicole Walden: if I wait bc i forgot, I regret it 00:50:11 Ali Alhamdi: big deal 00:50:12 Catherine Cook: not knowing students choke points 00:50:13 Leena Guttal: I am prepared to answer questions Brent Perry: Do it to be ready for any questions 00:50:14 rachael steward: helps me anticipate errors and better teach 00:50:14 Ann Marcellin: It prepares me for potential student struggles 00:50:15 00:50:16 Ana Guerrero: I would know what struggles students' may encounter 00:50:16 Lizabeth Nicosia: Anticipate questions. Felicia Phillips: It will influence how you preview the 00:50:16 assignment Shorten the amount of problems 00:50:17 carolina vix: big deal - might need to re-make it 00:50:17 Lisa Cady: Sharon Baltzer: Do the problems ahead of time, but don't show this 00:50:18 to students. Work through the problem with them. 00:50:18 Janice Magauay: Anticipate student quetsions Theresa Raftery: I can predict issues students will have 00:50:18 00:50:19 PALOMA CARRERA-ANDINO: predict questions Veronica Troup: I wouldn't be able to provide immediate feedback 00:50:19 Sheila Kirton-Robbins: You can anticipate mistakes, etc if you are 00:50:19 prepared Jeanne Costello: It could be a big deal if you don't do the 00:50:20 problems ahead of time. Rosemary Turk: Depends on how comfortable you are with the concept 00:50:20 00:50:20 Rebecca Zlotnik: If you wait, there may not be the example

exception you wanted to demonstrate 00:50:21 David Barnes: If you do it ... you know the answers. 00:50:21 Brenda Wagner: I'll know which problems are harder and students might have trouble with Robyn Graziano: Doing it will help you think about what 00:50:21 misconceptions students have Christy Berman: Depends on whether I was prepared and when I chose 00:50:22 the worksheet. Nithya Soundararajan: Work on the problems beforehand to get an 00:50:22 idea of where the students may have issues and also be prepared to answer their questions. 00:50:23 Jenny Sagrillo: help anticipate student responses 00:50:23 Stephenia Courtnev: problems the students may encounter Michael Chrzan: Since I waited, kids will see my thinking in the 00:50:24 moment wait and then feel rushed 00:50:24 Regina Williams: Deborah Eberhardt: 00:50:24 anticipate where students may struggle 00:50:24 not much Yini Wang: If I do it-I will have a plan and think of possible 00:50:25 Kathy Felt: misconceptions 00:50:25 Jennifer Cronin: You will be able to identify what problems might be more difficult for students and you will be better able to see common errors they might make 00:50:26 Carmelita Nalzaro: expectations are met 00:50:26 dana dulzo: the students and work together on the problems and compare answers 00:50:26 Patti Scharschmidt: For some worksheets it's a big deal, others not 00:50:26 Lindsay McCrary: I will k ow what the students are thinking Viragni Chand: You have a set expectation 00:50:26 Joseph Prevost: more realistic expectations 00:50:26 It will give a child to feel ownership of their 00:50:26 Susan Weiss: learning 00:50:27 Susan Troutman: Doing it ahead of time helps you plan for misconceptiosn 00:50:27 Tiffany Jones: I'll be able to better predict their mistakes Rosanne Cantwell: You might be able to find questions students 00:50:28 may have trouble with. 00:50:28 Laura Semian: if do ahead can give hints 00:50:28 PALOMA CARRERA-ANDINO: be ready 00:50:28 Donna Bergonzi: Not a big deal doing the problems incorrectly 00:50:29 lee hanby: Anh Le: Know what skills are needed to solve them. 00:50:29 Tracy Benjamin: I will know the difficulty and common q's students 00:50:30 may have Christine Baccaro: It allows me to think ahead of what the 00:50:32 students may suggest 00:50:32 Keisha Davis: idea of where struggles will happen Leah Cottrell: we might fail to keep open-minded to different 00:50:32 ways/approaches to solving

00:50:32 Shawn Roberts: You would know the pitfalls the students might have. I might see where a student would go off track Anita Tyndall: 00:50:32 00:50:33 Felicia Phillips: It will influence which problems you assign 00:50:33 Erica Krick: teamwork if students get stuck If you wait, it may be too long, too short 00:50:33 Rebecca Zlotnik: 00:50:34 Julie Leporiere: doing the worksheet ahead of time would activate my brain you might be better able to predict which problems 00:50:34 Sheila Bishop: will give students a hard time Gloria Flores: Anticipate mistakes and plan for it 00:50:34 prepared for student's different way of solving 00:50:34 Xen McCov: If worksheet is good, I will be better 00:50:34 Lyubov Presnetsova: prepared to understand the letter 00:50:35 Janice Magauay: instructional adjustment 00:50:35 JoAnn Hiatt: Prepared for questions and anticipate errors David Barnes: If you wait ... you are open to more answers. 00:50:35 delete ones that are no good 00:50:35 Laura Semian: 00:50:35 Susan Danskin: harder to anticipate errors students will make Monica LaCelle: can't prepare assessing or advancing questions 00:50:36 00:50:37 Jennifer Heldenbrand: I can anticipate gotchas, problems with the work 00:50:37 Katherine Raiguel: prepared for question/mistakes 00:50:38 Selene Hurley: I am able to gauge the length of time Rachel Slezak: anticipate some but not all student errors. 00:50:38 Evette Langham: I would have an example at hand. It wouldn't change 00:50:38 the lesson. 00:50:38 Rhonda Rampley: anticipating student struggles 00:50:39 Stephanie Bernabe: knowing where kids my struggle; misconceptions I may not have an immediate answer, but will be able 00:50:39 Janet Mahedy: to model how to solve problems 00:50:40 MELVIN BURNETT: doing it beforehand lets you check for potential challenges your students will face 00:50:40 Patricia Daugherty: If I wait, I can't anticipate where students might get stuck or shine. 00:50:41 Nicole Walden: I don't always get the resulkts I want from the questions there 00:50:41 Suzannah Young: knowing what students might struggle with 00:50:42 Vonda Hicks: Not properly understanding the concepts and skills being taught 00:50:42 Maria Woehl: I might not like the w.s. after all, or only use part of it, or use it to identify concerns I had and students might have 00:50:43 Brenda Wagner: I might realize that it'll take kids a LONG time and want to cut back I will have a better idea of what I am 00:50:43 Donna Misciagna: asking students to do and may modify the assignment based on doing the worksheet first. 00:50:44 beth blumberg: You find bad problems... you have an idea if the copy is legible. You know if there are impossible problems 00:50:45 MICHAEL KAROLEWICZ: If I wait, I have not anticipated where

students would be confused, like if 2=2 or -2=2 00:50:45 Tom Litwinowicz: determine how you will recall how to solve 00:50:45 Rommel Daz: gives an advance info about what the kids know 00:50:45 Sonia Calantropio: Find stuck points, predict answers Lynda Krivansky: Working the problem ahead of time, with 00:50:46 multiple ways to solve will help us pinpoint issues students may have during solving Melody Sutton: better able to anticipate what skills they'll need 00:50:47 Jennifer Decker: let's me find errors or identify areas 00:50:47 students may struggle more relaxed having been through it, knowing 00:50:47 Christine Bucciero: what to expect. I can predict which ones will be more difficult 00:50:48 Vicki Vierra: not much; carry on with a procedure already set. Catherine Livesav: I can answer the questions. Might not 00:50:49 understand all the problems 00:50:50 Tammy McClure: I find my errors before I give it tothem Justin Klinger: A problem might have a twist I have not explored yet 00:50:50 with the students such as no solution or infinite solutions Sharon Black: determine where they will make mistakes 00:50:51 00:50:51 Patti CZAR: do, then question, then lesson Kathy Rubendall: Help me anticipate questions 00:50:51 00:50:52 Julie Wankel: not a big deal but making sure they can complete 00:50:52 Debra McClure: If you dont do it first you may not aticipate the level of struggle help us to review concepts better with studens 00:50:52 Anupama Anand: I will know how easy or difficult 00:50:53 Leena Guttal: I'll get bored, make it smaller, change assignment 00:50:54 Tanya Dewland: 00:50:54 Mark Phipps: You may find errors in the sheet, or potential errors in thinking 00:50:55 Isabel Arcava: both have pros and cons Catherine Bronikowski: I do not influence how student solves 00:50:55 Idania Dorta: It helps to guide your instruction 00:50:55 Catherine Abbott: If you do it first you may use the same 00:50:55 "educated algorithm" and not see how kids would do it. 00:50:56 Debbie Meaney: I would work the problems out different ways. Karen Pritchet: It allows for different paths of solving 00:50:56 00:50:57 Wendy Janerico: I can help them easier. it will help you plan 00:50:58 Angela Langenkamp: misconceptions/mistakaes Since I have done these problems before, I don't see 00:51:03 Ming Ho: why it matters if I do it ahead of time, since I already have an idea of what students may do. if you do it ahead of time, you know what to expect 00:51:04 bfecteau: and which problems to focus on for specific students. end up with bad practice problems-confuse kids with 00:51:04 Heather Ruiz: things they aren't ready for 00:51:10 RHONDA MAYO: prepares for any problems they may have Susan Shuart: I've had students do the work ahead of time, then 00:51:12 they don't have work to do when everyone else is completing the worksheet. this might be good for beginning teachers 00:51:13 Gisela Vichot: 00:51:20 Kent Thele: You may anticipate their difficulties and turn them

into robots. Lizabeth Nicosia: 00:51:29 I always post answers (but not the work) so students can check as they go, and ask questions if they need to Laura Semian: so... what happens with the 20% who don't "get it" 00:51:34 I would be walking around looking at particular 00:52:01 Ann Marcellin: questions that could cause difficulty @Liza This is what I do. 00:52:06 Shonda Moore: Tammy McClure: each one teach one 00:52:09 prepared 00:52:26 Katherine Raiguel: Laura Semian: if you do it ahead of time... it's easier to know 00:52:28 what to look for 00:52:31 Danielle Phillips: Some fall through cracks Kathleen Bliss: if didn't do it, now have to spend more time 00:52:31 figuring out why they are stuck 00:52:33 Stephanie Bernabe: informs how you might reteach I may not have considered WHY they got the problem 00:52:33 Kathy Felt: wrong 00:52:34 CATHY SMITH: You can help them quicker if you have done it ahead of time Lizabeth Nicosia: Knowing the answers, it saves time! 00:52:34 00:52:35 Leah Cottrell: we can anticipate where they may go wrong 00:52:36 Xen McCoy: If I know ahead of time, I can see problems instantly 00:52:36 Lynda Krivansky: I will be prepared to coach more efficiently I can group them together based on the 00:52:37 Gabrielle Kisner: problem types they're struggling with. 00:52:38 Shonda Moore: They work in pairs or groups. So their peers become teachers. 00:52:38 Christine Bucciero: I have more time to help them if I did the problems ahead Catherine Cook: you look to see if there is someone who is stuck on 00:52:39 one detail, as opposed to those who have no idea how to start 00:52:39 Wendy Janerico: easier to help 00:52:40 Monica LaCelle: assessing and advancing questions Kate Burstein: Make it more challenging...not knowing which issues 00:52:40 to antipicate...if you haven't done it ahead of time won't know where their issues really are 00:52:40 Heather Ruiz: 00:52:41 Ann Marcellin: You can anticipate errors 00:52:41 Jennifer Heldenbrand: If I know who they are, I can prep the students 00:52:41 Patrick Anderson: Prepares my brain for what to look for Jenny Sagrillo: I'll have an idea of what each problem entails 00:52:42 00:52:43 Anh Le: you'd know how to scaffolding and help them. 00:52:43 lee hanby: you can see the errors 00:52:44 Joseph Prevost: you could have anticipated the issues that they'd encounter, and be better prepared to assist them. I'd have to spend a long time at each desk 00:52:44 Jennifer Rolling: figuring out what they did Anticipate pitfalls 00:52:46 Randolph Chapman: 00:52:46 Mark Phipps: You may be able to group them

00:52:47 Anupama Anand: we can help he students simutaneously to I would already know where they were going to get Maria Woehl: 00:52:47 stuck and I would probably address that in the discusion 00:52:48 rachael steward: I would know the kids well enough to know who would need help with which particular questions 00:52:48 Angela Langenkamp: circulating you would know the answer and be able to find the students with the wrong answer. You know where they might struggle 00:52:50 Leena Guttal: 00:52:51 Idania Dorta: You will know ahead of time where these students may have difficultu You could scaffold up or down depending on their 00:52:51 Vicki Vierra: difficulties Gloria Flores: You will be more prepared since you anticipated 00:52:51 mistakes 00:52:52 Keisha Davis: have idea where they will get stuck I know what to look for in their work Patricia Daugherty: 00:52:53 give them hint 00:52:53 Yini Wang: Mark Vasicek: You will know which students to single out. 00:52:53 some worksheets may have errors 00:52:53 RHONDA MAYO: Felicia Phillips: If you do the problems ahead of time, you 00:52:53 can give them a starting point Patti Wallace: you will know common misconceptions 00:52:54 00:52:54 Lindsay McCrary: do it and know sooner who needs help 00:52:54 Jennifer Cronin: You might be able to pick a particular problem that has several of the "roadblocks" kids are struggling with and go through that problem with the small group 00:52:55 MELVIN BURNETT: It helps reacquaint me with their potential struggles 00:52:57 LeAnna Deveaux-Miller: NEW PROVIDENCE THE BAHAMAS Jeanetta Glass: may be an error on the answer key 00:52:57 00:52:57 Sharon Baltzer: I just said that slightly differently @ Laura I talk with the class about some of the problems I 00:52:57 dana dulzo: think are hard and see what they have to say. I notice the students reluctant to participate. 00:52:57 Deborah Eberhardt: I already know what potential mistakes can be made By doing it ahead of time, I could look for 00:52:58 Catherine Livesav: problems the students might have. Can check their work quickly. JoAnn Hiatt: Scaffold better through the process of solving. 00:52:58 00:52:59 Grace Weissmann: You might see your own mistakes in doing it 00:52:59 Kathleen Bliss: have to do it ahead of time thinking/looking at it like a student, not an expert 00:52:59 Lynda Krivansky: We need to consider multiple ways to solve AND common misconceptions You may only look at solving it one way. 00:53:00 Darvin Best: Michael Chrzan: Since I waited, I can pull those 7 students into a 00:53:00 huddle and have them show me their thinking OR do 1 problem to show mine Nonye Obiora: Be able to see what they are struggling with 00:53:01 00:53:03 Carmelita Nalzaro: knowing ahead means more time to solve the

problem 00:53:04 Donna Bergonzi: But you can look at student errors to help you see where they need help. 00:53:04 Walter Shaner: You may understand various problems and seek solutions to them. 00:53:04 Catherine Doiron: Have you already worked with these students? Do you know them? Selene Hurley: You have more time to find out how to help since you 00:53:05 already know what mistakes they may have made If you have done it first you have the answers on 00:53:05 Kim Petersen: your mind, and it is more obvious if students have the wrong answer as you are going around the room. Then you can catch mistakes early and prevent them practicing it wrong. 00:53:07 Rosemary Turk: I can look at their work and determine if it is a calculation mistake or lack of understanding if the teacher is prepared Winnica McLean: It's easier to see what needs more attention 00:53:07 00:53:08 Christine Baccaro: Don't have to waste time actually doing the work, allows more time to help the students The time put in up front will help us later. We can 00:53:08 Dave Hankin: anticipate students difficulties. 00:53:08 Susan Danskin: I might be more likely to point out what they did wrong than letting them struggle to find their own errors If you don't do it ahead of time, you might 00:53:08 Jeanne Costello: never know some students are struggling because they might not let you know. Prep is important. 00:53:08 Mohamed T: 00:53:08 Debra McClure: you can aticipate questions and stuggles if you do it ahead of time. 00:53:09 Donna Misciagna: I can group kids together based on the types of mistakes they are making if I have already doe the worksheet. Jenny Sagrillo: gives me more time to think about unexpected things 00:53:09 I can pair students quickly by seeing who gets it 00:53:09 Xen McCoy: and who does not 00:53:09 Catherine Abbott: If you DO IT AHEAD and look for likely misconceptions then you can have strategies to address likely misconceptions. IF A NEW misconception occurs, you can address that quickly. 00:53:11 Leena Guttal: The common mistakes they make Shawn Roberts: If you wait then you would have to take extra time 00:53:13 to figure out where they are getting stuck. 00:53:14 Anita Tyndall: If I did the work ahead of time, I might have seen what mistakes would be likely I could ask guiding questions to help them rather than just give an answer Doing it can help you find and look for errors that 00:53:14 Julie Wankel: students might get stuck on beth blumberg: It will allow me to look for problem spots and good 00:53:16 work.. to know if they are making an addition error vs an understanding error... (might need conversation) 00:53:16 Sheila Bishop: have targeted questions to help those struggling find there way Sheila Kirton-Robbins: If I did the WS ahead, I am able to see what 00:53:17 the students understand, what they are doing differently. Might discover a new

approach 00:53:17 You can review their work against yours to figure carolina vix: out their errors By doing it ahead, I will know which 00:53:18 MICHAEL KAROLEWICZ: problems are likely to be challenging and ask students to volunteer to show work on those to the class. 00:53:20 Tessie Menta: use systematic grouping 00:53:21 Mary Rose Portugal: Identify points where they may struggle and focus your instruction on these points Kate Burstein: If you've worked problems out ahead of time, you can 00:53:21 have some ideas in advance of where students may make mistakes and how to best assist, which questions to ask when students are stuck 00:53:22 LeAnna Deveaux-Miller: HAVING A CHALLENGE WITH MY AUDI0 Can identify different ways to approach the 00:53:23 Jennifer Decker: problem 00:53:23 Ann Marcellin: It gives you time to prepare helpful strategies if do it ahead, you would have better anticipate 00:53:24 Ali Alhamdi: what students difficulities would be If you do it ahead you may expect the student to 00:53:25 Jov Feinauer: work it your way when they may have another approach that works! 00:53:26 Lizabeth Nicosia: I like to have one of the successful students come to the board and explain their work 00:53:27 Belen Zavala: You might be tempted to give them the path in stead of waiting to listen to their thinking process Viragni Chand: You can figure out what skill or part of the concept 00:53:30 they don't understand 00:53:31 Rene McNeal: if you had your steps written out, you could check theirs against yours 00:53:33 Ann Swierzbin: You can quickly scan for errors as you move around the class Elaine Dupree: It wastes time because youll be able to problem 00:53:35 solve quicker 00:53:35 Patrick Anderson: Helps to see if there are irregular questions within the assignment Robyn Graziano: You may not be able to address those 7 struggling 00:53:36 students on the fly bfecteau: Doing it ahead of time, you are better prepared 00:53:39 point students to specific problems that might help them with different issues. 00:53:44 Rachel Slezak: if their mistake matches one you expected you can help. 00:53:47 Shannen Bunoski: multiple ways to showcase answers/work Danielle Phillips: 00:53:50 Worksheet 00:53:58 Erica Hoffknecht: you can see a pattern and tell a student to look at problem #4 for help on problem #10 for instance There is no decision a teacher makes that has a 00:54:23 Cindy Bryant: greater impact on students' opportunities to learn and on their perceptions about what mathematics is than the selection or creation of the tasks with which they engage students in studying mathematics (Lappan and Briars, 1995).

00:54:29 Catherine Livesay: wait

00:54:37 Catherine Abbott: Each child has their own path that you can work out together. 00:54:43 Donna Bergonzi: Try different ways. Suzannah Young: several of each - correct and incorrect 00:54:46 Jennifer Cronin: 00:54:48 Manv 00:54:52 rachael steward: many ways 00:54:53 Yini Wang: manv @Cindy - YES! 00:54:53 David Barnes: 00:54:54 Jenny Sagrillo: many ways 00:54:54 Shannen Bunoski: many 00:54:55 Stephanie Bernabe: many 00:54:55 Christine Bucciero: many ways 00:54:55 Walter Shaner: Many ways 00:54:55 Xen McCov: Many ways 00:54:55 Patti Wallace: namy 00:54:56 Mark Vasicek: Many 00:54:56 Vonda Hicks: Many 00:54:56 Lisa Cady: many ways 00:54:57 Sharon Black: many 00:54:57 Brenda Wagner: many ways 00:54:57 Lizabeth Nicosia: Many ways. You have to have that understanding 00:54:57 Patricia Daugherty: Many 00:54:57 Leah Cottrell: many ways 00:54:57 Donna Bergonzi: many ways 00:54:57 Dave Hankin: many ways... 00:54:59 Kate Burstein: many ways many ways 00:54:59 Susan Danskin: 00:54:59 Patti Scharschmidt: Many ways 00:54:59 Sheila Kirton-Robbins: many ways 00:54:59 Ana Guerrero: manv 00:54:59 Julie Wankel: many 00:55:00 Felicia Phillips: One way 00:55:00 Jeanne D'Arcy: many Kathy Felt: 00:55:00 many 00:55:00 dana dulzo: wait Carrie Dickinson: 00:55:00 many 00:55:00 Anh Le: Many ways At the end, we would compare the problems that 00:55:00 Susan Shuart: produced negative answers with the problems that produced positive answers. 00:55:01 Debbie Meaney: many ways Barbara McDonald-Pyle: Many 00:55:02 00:55:02 Grace Weissmann: Many ways 00:55:02 Robyn Graziano: many ways 00:55:03 Erica Krick: wait 00:55:04 many Joan Albers: 00:55:04 Danielle Phillips: One way at first then more ways as they struggled Rene McNeal: 00:55:04 manv 00:55:04 Cristy Holtzclaw: wait

00:55:04 Tracy Benjamin: Many Janet Bernard: 00:55:04 many ways 00:55:05 Sheila Bishop: many 00:55:05 beth blumberg: I do wait to see what they are doing to ask what they are thinkong Dennis Manyanga: 00:55:05 many ways 00:55:05 Joe Burton: wait 00:55:05 Wendy Janerico: many Debra McClure: 00:55:05 many 00:55:05 PALOMA CARRERA-ANDINO: many 00:55:05 Catherine Cook: as many as you can, but sometimes kids come up with their own that are great Michael Chrzan: Many ways 00:55:05 00:55:06 Rachel Slezak: wait 00:55:06 Rommel Daz: many ways Christy Berman: Always at lest one solution 00:55:06 00:55:06 Viragni Chand: many ways 00:55:07 Wendy Nosal: many ways 00:55:07 Danielle Dalessio: wait Tara Sewell: 00:55:07 many ways Anita Tyndall: 00:55:07 One way 00:55:07 Leena Guttal: Many ways 00:55:07 Darvin Best: Wait 00:55:07 Derrick Johsnon: many ways 00:55:07 Jet Yeung: many ways 00:55:07 Jeanne Costello: Usually more than one way 00:55:08 Donna Misciagna: Many ways Shawn Roberts: Many ways because this makes me nervous to do 00:55:08 without trying it. try multiple pathways 00:55:08 Nonye Obiora: Wisnu Siwi Satiti: 00:55:08 many ways 00:55:09 Katherine Raiguel: attempt to get many ways... Belen Zavala: 00:55:09 wait 00:55:09 Sonia Calantropio: Many ways. Try and think like a kiddo Patrick Anderson: Honestly .. wait 00:55:10 00:55:10 Tanya Dewland: many ways many ways ideally, but realistically one way 00:55:10 Melody Sutton: should do many ways... but probably will do one way 00:55:10 Laura Semian: Jennifer Decker: 00:55:10 many Kendra Edwards: Many ways 00:55:10 00:55:10 Deborah Eberhardt: many or wait Depends on how much time I have 00:55:11 Lyubov Presnetsova: 00:55:11 Stephenia Courtney: wait to see what problems arise 00:55:11 Eric Totheroh: Wait!! Discover with them! They love to see it! 00:55:11 Theresa Liddy: I would need to do many ways 00:55:12 Heather Ruiz: one wav 00:55:12 Mary O'Sullivan: many 00:55:12 Susan Weiss: Many ways so I can see what could possible happen. 00:55:12 Selene Hurley: one way 00:55:12 Laura Cranmer: wait

00:55:12 Janice Magauay: Many ways Maria Woehl: 00:55:13 many ways 00:55:13 Dewey Gottlieb: wait 00:55:14 MICHAEL KAROLEWICZ: My favorite way and one other. Evette Langham: I'd wait with the open middle question and have the 00:55:14 students share the answers and as a class we would determine which work and which didn't Isabel Arcava: many 00:55:14 make sure it can be done 00:55:15 Jacqueline Sciortino: 00:55:15 Tamara Stewart: one wya 00:55:15 Bryan Bagala: many ways 00:55:16 Karen Pritchet: Wait Laurie Havnes: 00:55:16 many ways 00:55:16 Catherine Bronikowski: wait 00:55:16 Connie Peters: wait Jennifer Collier: one way or many depends on the problem 00:55:16 00:55:17 Tammy McClure: one 00:55:18 CATHY SMITH: a couple ways 00:55:18 Gloria Flores: many ways Twice and look for the pattern 00:55:18 Rosemary Turk: 00:55:18 Dominador Guillermo: many ways then summarize like you did with us Ali Alhamdi: 00:55:19 many 00:55:19 RHONDA MAYO: many 00:55:20 It depends on the problem. If I'm sure I Gabrielle Kisner: could figure it out, I would wait so I don't enforce my way on my students. 00:55:21 Laura Partridge: Try to generalize a pattern as opposed to exact answers. 00:55:22 Teresa Bulanda: many Try to do it many ways, but I may not be able to 00:55:23 Ming Ho: come up with them until I see students do it. Ann Marcellin: Wait and have students discuss how they see it 00:55:24 00:55:28 Shannen Bunoski: many 00:55:28 Catherine Abbott: Do ONCE to make sure it is possible, THEN wait to see what kids would do. Veronica Kwok: I should do many but it takes me so long to make the 00:55:31 worksheets so I typically end up waiting 00:55:32 bfecteau: 1 way or wait 00:55:34 WARA SABON DOMINIKUS: many aways 00:55:38 Ronald Golden: one way at a time 00:55:39 Ann Swierzbin: wait and have students share their results Rebecca Zlotnik: Have 1 and wait to see the students 00:55:40 strategies Felicia Phillips: 00:55:53 @Rebecca: I agree! Dave Hankin: 00:56:10 Yes Shonda Moore: 00:56:14 will be a big deal 00:56:16 Danielle Phillips: YES Kate Burstein: Huge problem if we don't work on it ahead of time 00:56:18 Teresa Bulanda: many but open for student's solutions 00:56:20 yes 00:56:20 Stephanie Bernabe:

00:56:21 Mark Vasicek: Huge. You would not know 0 was not possible in our original problem. 00:56:21 Lisa Cady: big deal 00:56:22 Eric Totheroh: I think students getting to see your processes is a huge step for them to know it's more than just a step by step Nicole Walden: more successful 00:56:22 Yes, many questions unless you have 00:56:23 Alison Jo Frost: procedures to help with many questions Julie Wankel: 00:56:25 problems Wendy Janerico: huge 00:56:25 00:56:26 Vicki Vierra: I might promote my way 00:56:27 Cindy Luper: Many ways Brenda Wagner: Yes, I might be tempted to try to teach the 00:56:28 solutions that I personally came up with. 00:56:28 Viragni Chand: yes 00:56:29 Stephenia Courtney: big deal 00:56:29 Laura Cranmer: waiting will create surprises and thinking Patti CZAR: Some students will give up 00:56:29 Time to check if students are correct 00:56:29 Rosemary Turk: JoAnn Hiatt: Open to hearing all of the students share solutions. 00:56:30 00:56:31 Sheila Kirton-Robbins: have an affect 00:56:32 Donna Bergonzi: I think it will be a bigger deal Students will be thinking about the concept 00:56:33 Catherine Doiron: 00:56:35 Lyubov Presnetsova: Students will be interested in solving now Ann Marcellin: You have to facilitate the discussion 00:56:35 00:56:35 Lindsay McCrary: better understanding 00:56:35 Yini Wang: big deal 00:56:35 beth blumberg: If you wait ... you follow the students... If you preplan you force the students to think your way Jennifer Collier: i know what questions to ask and how to 00:56:36 help/scaffold thinking if i've done it many times dana dulzo: better class discussion when everyone (teacher 00:56:37 included) is working on it together. 00:56:37 Idania Dorta: Encourage students to try alternate answers Patrick Anderson: I will be caught off-guard and miss out on 00:56:38 time working with students Jacqueline Colbourne: 00:56:38 Huge deal 00:56:39 big difference Tom Litwinowicz: 00:56:40 Christine Bucciero: you have an idea about student misconceptions 00:56:40 Susan Weiss: If I did not do the problem, I would have a hard time understanding what the student were thinking. 00:56:40 Laurie Havnes: significant difference Kathleen Boyle: Doing the problem helps you understand what 00:56:41 questions to ask students who are stuck 00:56:41 Keisha Davis: need strategy to solve 00:56:41 Jeanne Costello: Big deal Many ways will allow you to recognize the 00:56:41 Patti Scharschmidt: mistakes the students are making. 00:56:41 Jennifer Decker: will either help many or confuse many

00:56:42 Nonve Obiora: Yes, huge impact Jennifer Cronin: You will be less familiar with potential 00:56:42 student outcomes both correct and incorrect it will make a difference in our rich discussions 00:56:43 Leah Cottrell: better discussions 00:56:43 Sheila Bishop: 00:56:43 Mark Phipps: Harder to guide discovery It may be taught come up with multiple 00:56:43 Lynda Krivansky: solutions, but would definitely be more beneficial carolina vix: Solving many ways will allow you to help students 00:56:43 more effectively 00:56:46 Carolyn Warnell: anticipate what questions they might ask 00:56:46 Isabel Arcaya: discussion Leena Guttal: You would know what works and what doesn't 00:56:46 00:56:46 Grace Weissmann: it depends on your ability to understand alternate entry points Brainstorming possible solution methods 00:56:47 Catherine Abbott: would help when students do not know where to start. Patti Wallace: teacher is going to get stumped and not be able to 00:56:47 understanding their thinking and not able to help as many Kathy Felt: Short changes the kids 00:56:48 00:56:49 Belen Zavala: I will have a preconceived idea of how to solve it 00:56:50 Jenny Sagrillo: allow for more brain power for me to think about what students are actually doing instead of trying to solve the problem myself Gloria Flores: Significant changes 00:56:50 Justin Klinger: Predicting students issues 00:56:50 00:56:50 Ronald Golden: 00:56:50 Brenda Wagner: I might have the idea that there is a "right" and "wrong" way to do this 00:56:50 David Barnes: I might have to show my students how I think about a problem. Debra McClure: I would have students share strategies, but want to 00:56:50 anticipate their thinking Shawn Roberts: If I have many ways I can nudge the students to look 00:56:52 for other ways to figure this out. Maria Woehl: more students will need help but they'll help each 00:56:52 other Darvin Best: Leaves room for discussion 00:56:52 00:56:53 Dominador Guillermo: lessons will be completely different. strategies and all. 00:56:53 Mark Vasicek: heh 00:56:53 Sonia Calantropio: Kiddos need to know that there are multiple ways to solve problems. 00:56:54 Jacqueline Colbourne: i was If we don't prepare for student difficulties in 00:56:55 Dave Hankin: advance, we are not anticipating the help they may need. Dineica Davis: I can anticipate student misconceptions 00:56:56 Anita Tyndall: If do one way I can help a kid that is really stuck 00:56:56 no clue but be open to their individual ideas By doing it many ways, I can help students 00:56:57 MICHAEL KAROLEWICZ: better.

00:56:57 Danielle Phillips: Lost Tara Sewell: very frustrateed 00:56:57 Kendra Edwards: You will be prepared to address developing 00:56:57 conceptions students may have Catherine Cook: huge deal because you may not realize why or where 00:56:57 they are getting stuck LOVED problem 2 00:56:59 Mark Phipps: Laura Semian: it was way more challenging 00:57:00 Frustrated 00:57:00 Xen McCoy: not frustrated 00:57:00 Keisha Davis: 00:57:00 Tammy McClure: more student lead 00:57:01 Laura Ryan: Big deal wouldn't know how to coach them through it if 00:57:01 Melody Sutton: they're stuck 00:57:01 Mark Fili: Anticipate student misconceptions and frustrations. Sharon Black: I was not 00:57:02 Gabrielle Kisner: I was. I still have summer brain. lol 00:57:03 00:57:03 Donna Misciagna: Bigger deal. May be difficult to know how to help students quickly. CATHY SMITH: you would have to work it the same way the students 00:57:04 worked it to see their mistake. 00:57:05 Erica Hoffknecht: I can impact the lesson because it could cause a different dialog by going over some students trials 00:57:07 Anh Le: not prepared to help students I think that you might overlook some of the 00:57:07 Catherine Livesay: students ways of working the problem because you are set on one way. 00:57:08 Cindy Bryant: Feel more comfortable about presenting the problem to students 00:57:08 Tracy Benjamin: Better teaching tool for the entire class. What works and what doesn't. and why Carmelita Nalzaro: gives more room to figure it out 00:57:09 Leena Guttal: 00:57:09 Frustrated 00:57:11 Catherine Abbott: Puzzles are supposed to be frustrating. 00:57:13 Jeanetta Glass: I was confused at first! Mary O'Sullivan: loved it 00:57:14 I didn't think strategically 00:57:16 MICHAEL KAROLEWICZ: Better discussions when I do the work ahead 00:57:16 Patricia Daugherty: or I get frustrated trying to explain 00:57:18 Jennifer Decker: I thought I was going to quit when you gave prob 2 00:57:21 Rachel Slezak: if I have not done it I will not bias the kids towards my way 00:57:22 Ann Swierzbin: Many solutions and so students have a voice in adding their solution to the class list bfecteau: Waiting and having the students complete them first 00:57:23 could open up many different ways and has them do most of that work. You won't know how to help a student if you don't 00:57:23 Ming Ho: anticipate how the student is stuck. Catherine Doiron: It is different to feel frustrated and 00:57:24 unable to find a solution and getting the solution wrong.

Margarito Valdez: The ones that solved many ways may be more 00:57:27 prepared to assist the struggling students Patti Wallace: we bring these problems to our PLC and gallery walk 00:57:27 on ways to solve. Knowing the more the better Rosalind Brown: Those are times where I challenge kids to find an 00:57:32 answer and share their discovery Nicole Walden: kind of like triple elimination competition 00:58:09 MICHAEL KAROLEWICZ: Students want to know if their way of 00:58:10 thinking about a problem is valid. Students will be spending time solving for 00:58:12 Mary Rose Portugal: more mays the rest of the time. I think we can help them develop persistence. yes, but if it's the SAME 7 over and over and 00:58:24 Laura Semian: over... THAT'S an issue 00:58:32 Catherine Livesay: You could model your way of thinking about the problem with the kids. you have to do the problem ahead so you can 00:58:43 Christine Bucciero: guide them with questioning Catherine Abbott: Then multiply the 53% students across 4 00:58:43 periods? Rosemary Turk: Share with a partner 00:58:46 Danielle Phillips: Groups to work together 00:58:56 00:58:57 Dave Hankin: It's also the affect that those 7 not understanding will have on the rest of the class as well... rachael steward: I would recognize errors faster 00:59:01 Catherine Cook: I can group kids by where and what they are stuck on 00:59:01 to teach many at a time 00:59:03 Selene Hurley: doing it many ways will allow you to give them hints 00:59:03 dana dulzo: they see my struggle, they see my perisitence, they see my mistakes Laura Cranmer: I would partner the kids up 00:59:03 Danielle Dalessio: Students will work with eachother 00:59:03 Patti Wallace: frustrated I can't help them all 00:59:05 MICHAEL KAROLEWICZ: I will have an answer for more of the 00:59:05 students. Christy Berman: Need to know where the struggle will be. 00:59:05 00:59:06 CATHY SMITH: it will take longer if you don't already have it worked out several wavs 00:59:08 Donna Bergonzi: You will have a better sense of ways to support. Dave Hankin: effect 00:59:08 00:59:11 Melody Sutton: i might funnel them all toward the same strategy 00:59:11 Susan Weiss: I would show how I might have made an error to show that we all make mistakes. 00:59:11 Mark Phipps: More ways to connect with different learners It'll help with efficiency 00:59:12 Lynda Krivansky: Belen Zavala: I think each kid will get what they need, but it 00:59:12 will take more time carolina vix: 00:59:13 explain your procedure 00:59:13 Yini Wang: i will be better prepared Rebecca Zlotnik: I stand behind using the solutions of the 00:59:13 successful students to help these 18 kids

00:59:14 Xen McCov: If I do many ways, one of their ways may loop back to some way I did it 00:59:15 Leah Cottrell: You can remediate them in small group based upon methods of solving Tracy Benjamin: You will find a pattern of wrong and right ways. Use 00:59:17 this as a teaching tool for the whole class Carmelita Nalzaro: let the students collaborate 00:59:17 Brenda Wagner: I can give them a few different nudges towards ways 00:59:19 to think of the problem, then continue to let them have healthy struggle Well... duh. If you did it ahead of time, you 00:59:19 Mark Vasicek: probably thought about some of the strategies of teaching... 00:59:19 Sheila Kirton-Robbins: you can ask probing questions to help guide them through the problem 00:59:20 Mary O'Sullivan: students could pair up 00:59:23 Catherine Abbott: FOCUS help on strategies rather than THE answer because there is NOT a specific answer. 00:59:23 Laura Semian: pair students to work together, level-based 00:59:24 Ann Marcellin: It's driven by student need They work in groups and share their methods to teach 00:59:24 JoAnn Hiatt: the others. 00:59:25 Susan Shuart: I would have students work with a partner to figure it out. 00:59:25 Anh Le: Anticipate problems in advance 00:59:26 Donna Misciagna: I can group students together that are making the same type of mistakes. 00:59:27 Veronica Troup: You can easily recognize their misconceptions 00:59:27 Viragni Chand: Will be able to help students struggling 00:59:28 Michael Chrzan: Since I said many, I'll have different ideas about strategies they can use so I can ask them where they want to start and guide them based on one of the strategies. Sheila Bishop: You have more ideas of how to illustrate the problem 00:59:28 so kids can find a way in 00:59:29 Lisa Cady: Since I did the problem many ways, I already know many of their questions before they ask Wendy Janerico: can pair them up 00:59:29 00:59:29 Hanan ELHAJJ: students help each other Dominador Guillermo: I would also suggest groupings but with the 00:59:29 current situation, grouping may not be a good idea. 00:59:32 Patti CZAR: I actually think it might limit your understanding of the mistake possibility 00:59:33 Ali Alhamdi: try grouping, and peer to peer teaching. if I've done the problem then I can ask leading 00:59:33 Wendy Nosal: questions to help them think abt the problem Debra McClure: If you did not see the pattern then you would not be 00:59:35 able to guide student thinking Jenny Sagrillo: Doing it ahead of time give me more time to think 00:59:35 about what the students are doing and not taking time to do the problem myself 00:59:36 Patricia Daugherty: I would be better prepared to notice commonalities 00:59:37 Nicole Walden: you know how damaging or helpful a strategy is

00:59:38 Kathy Felt: I know likely errors and can more efficiently help each student. I can get to more kids this way Catherine Livesay: Have the students suggest a number and how 00:59:41 they would work the problem. Have other students show their work. Vonda Hicks: Create a breakout room 00:59:43 00:59:43 Julie Wankel: reteach the 18 with teacher or peer that understand I should have a better idea of why they are 00:59:43 Sonia Calantropio: struggling and how to help Jennifer Decker: 00:59:44 doing it ahead of time will have you ready to assist more and see where they are on the choose your adventure If I tried problem before, I can give some 00:59:44 Ming Ho: strategies that student can try. Shawn Roberts: If I have done it many ways I now have ways I can 00:59:45 help the students that are stuck. I now have ways to help them move past the point where they are stuck. 00:59:47 Angela Plaunt: you will have a better undrerstanding of how to support the kids 00:59:49 Ana Guerrero: Doing it ahead of time will help me save time in class to help students Teresa Bulanda: I would have idea how to help.. 00:59:50 00:59:50 Viragni Chand: You don't have to ponder 00:59:50 Ann Swierzbin: Pair-share a successful student with a struggling student and ask them to come up a solution. Lizabeth Nicosia: If you worked many solutions ahead of time, 00:59:51 then you could get a struggling student started - like give them one box Emily Kavanagh: strategies to do it another way 00:59:56 01:00:02 Kate Burstein: Doing work ahead of time helps us anticipate misconceptions 01:00:05 Cindy Luper: The kids who get it can show the rest of the class. Hopefully they will show a way that makes sense to someone in class. Rebecca Zlotnik: I make mistakes publicly! 01:00:09 01:00:10 Charnay Smith: The more students that I have who need help, and the more time that it will take me to help them, the less productive the instruction time. 01:00:14 Anita Tyndall: Can show my one way to those completely lost. Wont necessarily be able to ask guided questions for those that did it differenty. but may be able to do it on the fly and be able to be open to their thinking 01:00:17 beth blumberg: I think I would ask the student to start the problem on the board 01:00:21 Sharon Black: I hope that I would have made a similar mistake and can tell them my strategy of getting unstuck Its okay to make a mistake you the mistake is when 01:00:26 Shonda Moore: you don't try to fix it. It will help me group students with similar 01:00:27 Nonye Obiora: misconception Shannen Bunoski: pair share or productive partners! 01:00:27 Lizabeth Nicosia: You have to have a classroom culture where 01:00:35 this kind of question would be a challenge rather than a pain yes, with open middle problems basically NEED to do 01:00:35 Laura Semian: upfront... hard to do on the fly

01:00:43 Tammy McClure: solving it in front of them for the very first time allows them to watch how you problem-solve KEEP a record of the ATTEMPTS / MISTAKES so Catherine Abbott: 01:00:55 students can see that mistakes are part of the process. 5 Practices! Great book! 01:01:04 Trena Wilkerson: 01:01:06 Shannen Bunoski: productive struggle! I've been thinking about the Five Practices this 01:01:44 Amv Rushall: whole time! 01:01:56 lol@ ninja Laura Semian: 01:01:59 Tamara Stewart: This monitoring sheet is great for anticipating students needs Catherine Abbott: 01:02:01 IT IS GREAT when the students begin to describe their own problem solving method. Anh Le: Illustrative Math has a section with anticipate 01:02:08 misconceptions to help teachers know what to look for :-) It's very helpful!!! Catherine Cook: if you do worksheets first, you can see if there are 01:02:09 too many and it's just repetitive and you can see which ones will require different strategies and are better able to differentiate it for students 01:02:23 Chonda Long: https://www.nctm.org/Store/Products/5-Practices-for-Orchestrating-Productive-Mathema tics-Discussions, -2nd-Edition/ Donna Bergonzi: Hahah!! Mr. Toad's Wild Ride!! 01:02:31 Ma. Lorena Aloquina: having "many ways" can help me identify 01:02:39 students with their specific/simple to very complex difficulty and how to dealt with them specifically link doesn't work 01:03:16 Stephenia Courtney: 5 Practices FOPS is a rich resource!!! 01:03:20 Cindy Bryant: 01:03:20 Tammy McClure: if you are letting students share their right way it is like each one teach one Chonda...the link is broken KEISHA SMITH: 01:03:54 The link worked for me 01:04:12 Sharon Black: 01:04:17 Chonda Long: https://www.nctm.org/Store/Products/5-Practices-for-Orchestrating-Productive-Mathema tics-Discussions, -2nd-Edition/ 01:04:18 Gladys Montoya: It worked for me Link worked for me too 01:04:19 Keisha Davis: Nicole Walden: This affects 1/4 of my class !!!!! 01:04:22 Donna Bergonzi: Amen! 01:04:28 01:04:46 Lorie Huff: so true 01:04:59 Shannen Bunoski: very true!! 01:04:59 Catherine Abbott: For me, not preparing means not having great questions to help students to think through the problem themselves. Shonel fraser: When I do it ahead of time multiple ways, both my 01:05:09 students and I will have a smoother transition. Instead of us all thinking at the same time, so it takes time away from the students. I've been guilty of this and learned from my mistakes. I have a better understanding 01:05:09 Danielle Phillips: 01:05:10 Teresa Bulanda: the journey more important than the destination? MELVIN BURNETT: greatly enhance it 01:05:11 01:05:12 rachael steward: i will be ready to ask leading questions

01:05:16 Gloria Flores: Prepare facilitated questions Tracy Benjamin: Many different answers many different strategies. 01:05:17 01:05:21 Jacqueline Colbourne: You would end up guiding the conversation 01:05:22 Evette Langham: For a conversation, you would definitely want multiple perspectives to share 01:05:23 Leah Cottrell: it will definitely benefit the ability to converse about the problem Anticipation of errors 01:05:24 Rodney Cooper: Linda Baker: anticipate discussion 01:05:24 Jeanne Costello: 01:05:27 If you don't do it more than one way, your discussion will not go very far. Yini Wang: help a lot 01:05:28 01:05:29 Christy Berman: game changer! Much more effective conversations with students 01:05:30 Shawn Roberts: I can then have great questions to ask the students to learn even more about their understanding of the concept. 01:05:32 Nicole Walden: I can do more than just help Jennifer Cronin: Being able to provide prompting questions 01:05:32 that can help students work through difficulties Patricia Daugherty: Can highlight various ways of approaching 01:05:34 and doing 01:05:34 Sheila Kirton-Robbins: Preparedness It can help to guide instruction 01:05:35 Idania Dorta: Rosalind Brown: Will allow me to encourage kids with their thinking 01:05:37 and partner kids that are thinking similarly 01:05:37 Mark Phipps: Makes it much more flexible and able to anticipate responses better 01:05:38 Stephenia Courtney: focused questions and discussions 01:05:38 JoAnn Hiatt: Help more students by working it many ways! dana dulzo: able to guide the discovery for the students when I 01:05:41 am better prepared. 01:05:41 Brenda Wagner: You can have pocket questions to prompt thinking. 01:05:43 Maria Woehl: I would be able to facilitate the group struggle more efficiently - we get paid to be PREPARED! Kathy Felt: I'll have time to think and prepare, so I will be 01:05:43 more effective with my students. Catherine Doiron: 01:05:45 Trying many ways helps you know what questions to ask and gives you insight to students' mistakes Michael Chrzan: Not even just for helping students do it, but if I 01:05:47 tried many solutions, I can help students see other ways of thinking, other strategies. Catherine Doiron: 01:05:47 and thinking 01:05:47 Mark Vasicek: Doing this ahead of time, I'm doing my job as a teacher. If I wait, it's just being lazy. Nell Thurlow: Think of strategies to help students work through 01:05:49 the steps 01:05:49 Dominador Guillermo: you can expect the possible misconceptions 01:05:51 Veronica Troup: The more prepared I am , the more prepared I am to help students succeed 01:05:51 Rosalind Brown: many routes to one destination

01:05:51 Lizabeth Nicosia: Being prepared = better questioning Isabel Arcaya: understanding the different way to solve the problem 01:05:52 01:05:53 CATHY SMITH: you will be able answer questions more confidently and correct Jennifer Cronin: Shows respect for their struggle because you 01:05:54 did it as well MICHAEL KAROLEWICZ: I already have answers to likely "I am 01:05:54 stucks" Shannen Bunoski: anticipate discussion! 01:05:54 Kathleen Boyle: Helps me see how I can draw connections between 01:05:55 different strategies 01:05:56 Sharon Black: I will be able to anticipate discussions 01:05:57 Donna Misciagna: I'll know a variety of strategies that students can use ahead of times and choose students who used different strategies when we discuss the problem. Carmelita Nalzaro: you can give a lot of time for students to 01:05:58 collaborate 01:05:59 Kate Burstein: I will push myself to try as many ways as I can think of for tasks presented in class so I can be prepared for different misconceptions that arise in class 01:06:00 Leena Guttal: I am ready to answer their questions. I am in. abetter place to understand their struggles You wouldn't have questions that could lead 01:06:03 Catherine Livesay: the students to understand the concept. 01:06:04 Julie Wankel: students create great conversations when they share a different way and get correct answer 01:06:08 Amy Rushall: can help me guide and not tell. helps me see their point of view without imposing "my way" on them. Lyndsey Horton: anticipate the discussion and be able to guide the 01:06:08 conversation Lindsay Foster: Agee...I have to be prepared to help facilitate 01:06:08 different strategies from my students Catherine Cook: be open and prepared for students to have strategies 01:06:10 that they can share Susan Danskin: better able to use questioning to get the student to 01:06:12 think their way to a next step Donna Bergonzi: Thinking about questions ahead of time to support 01:06:13 different student thinking Debra McClure: being able to guide student thinking by having a 01:06:13 complete understanding of the problem or strategies 01:06:15 Leah Cottrell: I love to analyze student thinking/strategies in problem-solving 01:06:16 Danielle Phillips: For me, not preparing means not having great questions to help students to think through the problem themselves. Patti Wallace: create an opportunity for intervention AND extension 01:06:18 Patti CZAR: Doing it ahead of time can lead you to new problems 01:06:19 that you can ask the students Viragni Chand: If you did the problem multiple ways you will be 01:06:21 prepared to facilitate a conversation and discussion and be ready with anticipatory questions

01:06:22 Kathryn Swartzenberg: I may know where the most common errors can occur and can ask appropriately guided questions Darvin Best: Easier to address misconceptions. 01:06:25 Elaine Dupree: I sort of will know what to expect. however I didnt 01:06:25 struggle with problem 2 i got it right off the bat which means that i may not know what to expect Kathleen Bliss: can also challenge students who get it quickly on 01:06:27 first try by asking questions about their method/other methods Teresa Bulanda: knowing how to ask questions, waiting time etc 01:06:28 flying by the seat of your pants does NOT FEEL GOOD 01:06:33 Laura Semian: 01:06:34 Joan Albers: Help facilitate the learning Vonda Hicks: Prepare first, they use the method Checking for 01:06:38 Understanding 01:06:41 Shannen Bunoski: wait time!! 01:06:41 Nonye Obiora: In a better position to ask focusing questions Lyubov Presnetsova: I will be prepared and able to group 01:06:42 students by which mistakes they do to help them better Catherine Abbott: I LOVE the student who figures it out in a 01:07:28 way you did not see for yourself. Laura Semian: THAT is of value, too 01:07:31 01:07:40 Nicole Walden: cath - yes 01:07:51 Christine Baccaro: Totally agree Catherine "My favorite no" can be a great discussion starter. 01:07:53 Rebecca Flora: Catherine Abbott: I once had an Algebra 1 student who could 01:08:04 solve EVERYTHING with Tables. 01:08:04 Sharon Black: @ Catherine A - I agree Keeping a log of how students did problems wrong to 01:08:06 Terri Taylor: use the next year and add to it ever year is helpful also. Can do it with fewer problems...smarter not MICHAEL KAROLEWICZ: 01:08:17 harder 01:08:19 Rachel Slezak: without anticipating the ways they may approach the problem you will default to one strategy to teach 01:08:30 Catherine Doiron: You only need to try all of the ways one time. You will know the next time. 01:08:37 Viragni Chand: @catherine- I agree Rachel Kuehnl: makes me think of lesson studies from asian 01:08:59 countries Donna Bergonzi: It provides value to more than one way of thinking. 01:09:02 01:09:04 Dave Hankin: As always, you get out what you put in... 01:09:06 Nicole Walden: I hate missed opport bc i didn't solve ahead Rodney Cooper: preparation sparks deeper education 01:09:11 The more we front load the better the load 01:09:12 Alison Jo Frost: we can carry during class to help students think more productively. The difference between veteran and new 01:09:15 Catherine Abbott: teachers is when everything falls apart. The experienced teacher can pull something from their toolkit to stay the course. 01:09:15 Stephanie Bernabe: Allows us to be proactive and anticipate vs. being reactive 01:09:16 Danielle Bentley: you are speaking to me, sir! we should

never ask kids to do what we wouldn't do Allows students to realize there is "more than one Shonda Moore: 01:09:18 way to skin a cat". 01:09:19 Nell Thurlow: Better prepared means better questioning strategies Sharing in PLC ways other teachers present problems 01:09:21 Terri Taylor: is also useful Anticipation of what could be 01:09:22 Patricia Daughertv: Tracy Benjamin: We need to invest in our preparation to allow for a 01:09:23 richer engagement of our students 01:09:24 Lyubov Presnetsova: I cannot imagine to come to class without solving such problems first 01:09:24 dana dulzo: always be prepared is a great motto 01:09:24 Laura Semian: being prepared REALLY enables the teacher to be more effective 01:09:25 Tammy McClure: it changes who leads conversation Andrew Lammers: There is also room for teachers to think on their 01:09:26 feet and for teachers to use intuition (even if they prepare well) 01:09:27 Leah Cottrell: preparation is KEY for any facilitator's success Rhonda Homberg: Being prepared help to have the questions needed 01:09:28 when helping students CATHY SMITH: being prepared will help you scaffold for students 01:09:31 that need it, answer questions efficiently, and help more students. the delivery is spontaneous 01:09:32 Carmelita Nalzaro: 01:09:34 Rosalind Brown: It allows you to predict what kids may say and guide stalled conversations 01:09:34 MICHAEL KAROLEWICZ: Rich conversations come from finding ways for students to ponder and try different possibilities 01:09:35 JoAnn Hiatt: You are excited to hear all of the different ways so the students' voices are heard. Melonie Smith: The less you prepare, the more time you waste to 01:09:35 engage students in the lesson and rich conversation 01:09:36 Susan Weiss: When we are. Prepared we are then ready to answer questions of everyone. 01:09:37 Anita Tyndall: Being prepared helps to be able to ask questions and guide the conversaton 01:09:38 Ali Alhamdi: preparations make a big diff It can affect the way the class goes a lot. 01:09:38 Jeanne Costello: It allows us to anticipate questions. Maria Woehl: PREPARATION is the game changer - all other things 01:09:38 being equal. 01:09:39 rachael steward: Students connect better with you when you can have conversations with them about errors you yourself have made. They understand the idea of practicing, failing and then trying again. Katherine Raiguel: 01:09:39 Preparation allows us to ask guiding questions and for students to elaborate Joseph Prevost: you can spend more time making the lessons and your 01:09:40 behavior more interesting. more helpful. Preparation is like a road map guiding your 01:09:42 Donna Misciagna: instruction. 01:09:43 Ann Marcellin: You have to be prepared to meet students where they

01:09:43 Catherine Livesay: The better prepared you are the more interested the kids are in the lesson and seem to grasp the concepts. Wendy Janerico: the more I am prepared the richer the conversations 01:09:45 Teacher's excitement is contagious 01:09:49 Xen McCoy: 01:09:52 Julie Wankel: Students need to know there are more than one way to solve problems Work on all the problems - anticipate 01:09:52 Nithya Soundararajan: questions - note the time as well to accommodate the lesson length as well - ask meaningful questions 01:09:53 Angela Plaunt: if you understand the learning involved then you have a better chance of identifying misconcpetions/ needs ect Kathryn Swartzenberg: Allows us to determine and pose relevant and 01:09:54 purposeful questions. 01:09:54 Susan Papert: helps identify opportunities for discussion (math talks) LISTENING for the students "how come that" 01:09:55 Catherine Abbott: question. Great starter Veronica Troup: Students will start to see that it doesn't have to 01:09:55 be one way 01:09:55 MELVIN BURNETT: It gives us a better chance to make problems relatable to students and hopefully more real-world. It can also foster substantive conversation beyond the classroom beth blumberg: We (teachers) need to know why we gave the problem 01:09:55 and what we want the students to get out of them ... preparation creates more effective teaching 01:09:55 Tara Sewell: 01:09:55 Vonda Hicks: Students are able to teach other students 01:09:56 Anh Le: You will have many questions in advance to make connections during the discussion. It greatly affect. preparation means you can 01:09:57 Dennis Manyanga: lead discussion 01:09:59 Sharon Black: allows me to lead deeper conversations 01:09:59 Debra McClure: as a teacher we need to aticipate sticking points, questions, and ideas Debbie Grady: solve the problems and anticipate challenges student 01:10:00 may face we complete these strategy sheets during CT 01:10:03 Carol Watson: planning, it really helps Lesly Brown: 01:10:03 Preparing is key. I think we all do it when we're overworked. 01:10:03 Nicole Walden: 01:10:04 Elaine Dupree: totally when im prepared for a lesson i can ask open ended questions or find out what theyre thinking and why theyre thinking it 01:10:04 Felicia Phillips: I love how this question is framed! It's not about how preparation help students solve problems, but how preparation helps facilitate conversations.... Terri Taylor: Students have great ideas and can teach us different 01:10:05 strategies Jennifer Decker: 01:10:09 There are so many cross topic impacts, vocabulary, reading etc. that I was missing not prepping 01:10:10 Sheila Kirton-Robbins: You are not just focused on getting the

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answer first. You are more open to what the students are thinking/trying. You might actually learn something from the students bc they approach the problem differently. 01:10:16 Anita Tyndall: No lost time tryng to figure out the problems and strategies 01:10:20 Viragni Chand: When students see that their teacher is prepared they feel confident learning also Debbie Meaney: How can the student have respect for a teacher if 01:10:22 the teacher doesn't know what's going on? Katherine Raiguel: Even when we prepare, the students can still 01:10:31 suprise us with their methods! Rachel Slezak: putting something in front of kids you would not do 01:10:35 yourself may lead you to give boring work Yoga Dwi Windy Kusuma Ningtyas: I will arrange activities and try to 01:10:45 response it as on their shoes. Julie Wankel: I love open middle, my kids really struggled in a 01:10:49 good way with these problems 01:11:00 Lorie Huff: Thank you! Great session! Patti CZAR: If we can tailor questions to student interests and 01:11:09 questions they might have regarding a certain situation we can facilitate the learning 01:11:11 Jorge Veloso: Interessante! 01:11:20 Abigail Santiago: https://www.openmiddle.com/ love the "least helpful hint" 01:11:27 Laura Semian: Grace Weissmann: 01:11:28 Great session, thanks 01:11:47 Cindy Bryant: If you fail to prepare, be prepared for missed teaching and learning opportunities. 01:12:01 Monica Roland: Planning for lessons allows us to consider questions that may come up during instruction. It also forces us to focus instructional time. Trena Wilkerson: So true Cindy! 01:12:02 01:12:06 Christy Berman: My students love them! Catherine Abbott: If there is "one answer", then I give them 01:12:11 the answer up front and ask students for focus. Like find the land area of Maryland. 01:12:14 Lyubov Presnetsova: This looks awesome! Thank you for sharing this resource!! 01:12:22 Donna Bergonzi: Love it! @ Cindy B....Absolutely true 01:12:24 Sharon Black: Rachael - in which Asian countries have you 01:12:26 Catherine Doiron: taken math classes? 01:12:42 Cindy Bryant: <3 Open middle problems! Leah Cottrell: 01:12:42 Cannot wait to look at this! Link to open middle not working right now 01:12:48 beth blumberg: 01:12:51 Essence Brice: @alisonjofrost your response is perfection. front loading to help carry the load during class allows for more quality instruction. I used some of these problems with my 01:12:51 Jennifer Collier: virtual summer school. So fun! 01:12:58 Catherine Abbott: Book is excellent! 01:13:02 Dominador Guillermo: bookmarked open middle Grassroots workshops are great! 01:13:04 Kathy Felt: 01:13:11 Nicole Walden: https://www.youtube.com/watch?v=GwWoXtiEPdc

01:13:16 Carmelita Nalzaro: Great presentation Sir Robert. Michael Chrzan: Kids love these because these are what math is 01:13:18 about! They finally get to do math, not math class. It brings back the humanity to it. Hence, no robots. Great session. Emily Kavanagh: Hahahahahahahahahahaha 01:13:46 01:13:58 MIKE GENUEL SALAZAR: hahahahha Veronica Kwok: OMGGGGGG 01:13:58 Catherine Abbott: Ouch....that's painful. 01:14:09 Sharon Baltzer: Funny!!! 01:14:16 01:14:18 Rosemary Turk: LOL 01:14:19 Sharon Black: so funny! Too funny! 01:14:20 Cindy Bryant: Leah Cottrell: LOVE it! 01:14:24 01:14:26 Brittany Miller: cring 01:14:26 Mary O'Sullivan: 101 01:14:26 Lindsay McCrary: (Fa) 01:14:30 Keisha Davis: I have done this in downtown Baltimore Laura Semian: funny 01:14:31 LOL!!! 01:14:32 Ramona Hall: Brent Perry: moral of the story: find the owner of the white car 01:14:32 and beat them up 01:14:35 Justin Klinger: Guuuh Melonie Smith: OMG....this is hilarious! 01:14:36 01:14:37 Lyubov Presnetsova: Best math video ever! Lynda Krivansky: There prepared we are, the better able we 01:14:40 will be to coach students Veronica Kwok: #thatstrugglebus 01:14:41 01:14:42 Nadine Richards-Ramsey: LOL 01:14:46 Lynda Krivansky: This is hysterical! Rachel White: This is great. 01:14:58 Emily Kavanagh: I have seen videos like this before 01:14:59 Ana Guerrero: Wow! LOL 01:15:00 01:15:01 Shannen Bunoski: haha! 01:15:08 Gloria Flores: Awesome Katherine Rossignuolo: I think this was filmed in PA 01:15:09 can we show that to the students? 01:15:20 Grace Weissmann: Teresa Bulanda: i think it happened in Poland 01:15:28 01:15:30 Darvin Best: Great presentation! Donna Bergonzi: Thank you!! 01:15:37 01:15:39 Lindsay McCrary: thank you 01:15:42 Leah McCombs: thanks Trena Wilkerson: Thanks Robert! Great opportunities to 01:15:43 reflect on what we do and why! Problem Solvers not Robots! Danielle Phillips: 01:15:43 Thank you very much! 01:15:46 lee hanby: thank you Thank you!!! 01:15:47 Ana Guerrero: THANK YOU Alison Jo Frost: 01:15:47 01:15:48 dana dulzo: thank you for your presentation This was wonderful. 01:15:48 Debbie Meaney: 01:15:48 RHONDA MAYO: Great points

01:15:49 Tom Litwinowicz: thank you Shonel fraser: Thank you Robert! 01:15:50 Olga Kosheleva: Thank you! 01:15:51 01:15:53 Mary O'Sullivan: great presentation Thank you very much! This was wonderful!! 01:15:53 Kate Burstein: Laura Semian: Thank you... this was a great session 01:15:54 this was wonderful and inspiring THANK YOU 01:15:54 Danielle Bentlev: Cindy Luper: Thanks so much. 01:15:55 Kim Petersen: Thank you! 01:15:55 Tanya Landry: 01:15:56 Thanks so much! Grace Weissmann: Thank you! Great presentation 01:15:56 01:15:59 Tessie Menta: Thank you so much Katie Chiasson: Yes please share the video! 01:15:59 01:15:59 Kristie Chandler: Thank you so much! 01:15:59 CATHY SMITH: thank you very much. This was fun. Thank you so much!! Wenny Liao: 01:16:00 Thank you 01:16:05 Dennis Manyanga: Kathy Rubendall: 01:16:05 Thank you! Thank you. This was great! Very eye opening. 01:16:07 Catherine Livesay: India Puch: Thank you so much!!! 01:16:07 Sharon Black: can we get that link again 01:16:09 Rommel Daz: 01:16:09 Super, thanks 01:16:09 Debra McClure: Best seminar yet. Thank you! 01:16:10 Joan Albers: Thank you! Genesis Docena: Great presentation, thank you! Loved the last video 01:16:11 LOL 01:16:16 Dineica Davis: Thank you..loved this AWESOME PRESENTATION !!! 01:16:17 Melonie Smith: 01:16:17 Karen Pritchet: This was very informative! Shonel fraser: Can you please bring pack the slide with your 01:16:18 information? Shonel fraser: *back 01:16:23 Winnica McLean: This was awesome!!! 01:16:27 01:16:28 Gloria Flores: Thank You Loved It! Maria Woehl: Robert - you rock!! I have some experimenting to do 01:16:33 :) 01:16:34 Leah Cottrell: This was a valuable presentation - thank you so much! 01:16:39 Barbara Boschmans: if we don't send students to the open middle website, how do we give you proper credit? 01:16:40 Angela Langenkamp: Thank you....loved it! Mary Rose Portugal: Excited to try OMP with my kinder students 01:16:44 Thanks....great suggestion "What I learned 01:16:50 Catherine Abbott: by being a presenter?" Loved it! Denika Gum: 01:16:51 Daniel Irving: Thank you for this incredible presentation! 01:16:53 01:16:54 Ma. Lorena Aloquina: amazing...thank you! 01:17:04 Anita Tyndall: Great webinar! Thanks! This was great! Thank you!! 01:17:16 Ramona Hall: 01:17:17 Melanie Carter: Could you put the contact information back up, not

that we don't like looking at you guys. Catherine Cook: thank you very much! 01:17:17 01:17:18 Regina Williams: Great workshop 01:17:18 Scott Ing: really cool.... thanks Denise Beavers: great webinar 01:17:23 01:17:25 Viragni Chand: Thank you for this great presentation - very helpful. Laura Cranmer: Thanks! 01:17:28 Thank you Rob. I was really looking forward to 01:17:29 Nonve Obiora: meeting you at RIMTA this past spring but for the pandemic. Hopefully we'll have a chance to meet and chat. 01:17:32 Tina Hill: Always enjoy learning from Robert Kaplinsky! 01:17:37 Evangeline Pabulayan: Awesome presentation Joseph Prevost: could you send a link to your website? 01:17:41 Shonda Moore: Thanks for the information. Makes me thinks 01:17:48 differently. 01:17:56 Monica Roland: Great presentation! Thank you! Ruqayah Zuhair: Very educating presentation. Loved all t=your 01:18:00 strategies. Christina Tully: can you show the slide a few back with the 01:18:05 book and link 01:18:06 Anh Le: Thanks for another great session!!!! Evette Langham: What was the other book t(hat had the tracking form 01:18:16 in it?) Michael Farina: thank you. very helpful 01:18:19 01:18:19 Awesome presentation!! Thanks a lot! Laura Ryan: 01:18:23 Sheila Kirton-Robbins: Interesting ideas. Great job. 01:18:24 Lyubov Presnetsova: Thank you so much! Let's unlock this "Chinese box" Linda Baker: great webinar. I feel more confident to use open 01:18:26 middle 01:18:31 Dave Hankin: This method makes the learning better for all of us... students and teachers. 01:18:38 Myra Absin: Thank you. Great presentation. 01:18:40 Nithya Soundararajan: A very awesome presentation. Thank you so much Keisha Davis: Well done! Loved it!! 01:18:48 01:18:57 Nicole Walden: grassrootsworkshops.com WARA SABON DOMINIKUS: hanks for sharing. a great presentation. 01:18:59 01:19:04 Vonda Hicks: Thanks 01:19:10 Susan Danskin: Thank you, inspirational Excellent job! Thank you!! 01:19:17 Matthew Whitemarsh: 01:19:33 Justin Klinger: Thank You!!! Very Interesting Presentation Julie Wankel: 01:19:36 Thank you Melanie Carter: Thanks so much!! May ask my principal to watch this 01:19:46 webinar. Nadine Richards-Ramsey: Thank you. Great presentation! 01:19:47 01:19:48 Patti CZAR: Thank you beth blumberg: Are these free or paid 01:19:49 01:19:54 Christine Baccaro: So excited to try these types of problems -

thank you! 01:20:05 Arnold John Bulanadi: Thank you! Great Presentation! 01:20:05 Tracy Benjamin: Wonderful, thank you!! 01:20:07 Catherine Abbott: grassrootsworkshop.com Rebecca Flora: or PowerPoint with problem as background 01:20:08 01:20:11 Christie Wuebbles: Thank you! 01:20:14 Chonda Long: https://www.nctm.org/Store/Products/5-Practices-for-Orchestrating-Productive-Mathema tics-Discussions, -2nd-Edition/ Donna Bergonzi: Love Google Slides interactive activities! Drag and 01:20:16 drop! 01:20:23 Lyndsey Horton: thank you!! great presentation 01:20:30 Emily Kavanagh: Thanks for a great presentation thank you so much 01:20:30 Tessie Menta: 01:20:32 Jet Yeung: Thank you for sharing all types of problems. Thank you. I appreciate the resources. 01:20:36 Lauren Davenport: 5 practices for Orchestrating Mathematical 01:20:37 Catherine Abbott: Discussions Sahar Alkhatib: Thank you so much...a lot of things to consider 01:20:43 using with my own students. 01:20:45 Teresa Bulanda: Thank you for the inspiring presentation! 01:20:48 Chonda Long: https://www.nctm.org/Store/Products/5-Practices-for-Orchestrating-Productive-Mathema tics-Discussions, -2nd-Edition/ MIKE GENUEL SALAZAR: 01:20:54 Thank youu! 01:20:56 Catherine Abbott: 5 practices... is GREAT 01:20:56 Debbie Grady: thank you! 01:20:59 Shannen Bunoski: so informative!! Thanks so much! great webinar! Tamara Stewart: Great Workshop, thanks for the Open Middle Math 01:21:04 problems Sharon Black: 01:21:06 Thank you so much! 01:21:14 India Puch: Great presentation!!! 01:21:15 Nell Thurlow: Thank you for the great presentation! Kathy Medrick: great webinar! 01:21:16 01:21:17 tracey simmons: thank you 01:21:19 Rene McNeal: great presentation VIKAS SAXENA: THANKS ROBERT, EASY TO USE BUT HELPING A LOT TO 01:21:28 MAKE OUR STUDENTS TRUE LEARNER. VIKAS SAXENA 01:21:30 Mary Rose Portugal: Salamat from Manila! Thank you. This was so helpful. 01:21:33 Patricia Daugherty: Shannen Bunoski: thanks again!!! 01:21:38 01:21:39 Dave Hankin: Thank you again from Globe, Arizona! Awesome presentation - thank you 01:21:41 Viragni Chand: I have the first edition. Is it very different from 01:21:44 Arlene Smith: the second. 01:21:44 Jeanetta Glass: How is this book different from the Practices in Practice? Great presentation. Thank you 01:21:46 Dennis Manyanga: 01:21:48 Yini Wang: Thank you!

01:21:48 Jet Yeung: Great books and resources. 01:21:48 Anthony Penoro: Thanks! 01:21:50 Jennifer Heldenbrand: Thank you, Robert! 01:21:50 Robert Kaplinsky: NOROBOTS to 44222 Thank you, Robert! 01:21:51 Kathy Felt: 01:21:54 Laurie Walker: Thank you so much!!! Catherine Abbott: Thanks Robert. Thanks NCT100DAys! 01:21:55 Carmelita Nalzaro: Thanks Sir Robert. Great presentation. 01:21:56 Thanks also to Ms. Chonda Thank you from Richmond, VA 01:21:57 Lisa Cady: 01:21:58 Alisha Bhimji: Very engaging presentation, thank you! 01:21:58 Robert Kaplinsky: Thank you everyone Sonia Calantropio: Great speaker! 01:22:06 Thank you. 01:22:07 Ann Marcellin: Thank you! 01:22:07 Susan Papert: thank you !! Wisnu Siwi Satiti: Great presentation! thank you Robert, thank 01:22:08 you everyone! 01:22:13 Tracy Benjamin: Doh, can I get the code for the text? Thank you for your session and the resources to look 01:22:16 JoAnn Hiatt: up for additional information! 01:22:17 Ann Swierzbin: Thank You! 01:22:19 Sharon Baltzer: Enjoyed your high energy presentation. It got me wound up and ready to teach! 44222 and NOROBOTS Robert Kaplinsky: 01:22:21 Barbara Boschmans: Thank you! 01:22:22 01:22:23 Derrick Johsnon: THank you! 01:22:26 Yoga Dwi Windy Kusuma Ningtyas: thank you Robert. 01:22:29 Robert Kaplinsky: Thank you! 01:22:34 beth blumberg: Thank you! NOROBOTS to 44222 01:22:36 Robert Kaplinsky: 01:22:52 Melonie Smith: How do you follow Math on TWITTER? Shannen Bunoski: thanks Robert and NCTM! 01:22:54 01:22:58 Tracy Benjamin: Got it, nevermind Follow the hashtag #MTBoS 01:23:07 Robert Kaplinsky: Arlene Smith: Thank you for a great presentation. 01:23:16 Evette Langham: This was a great presentation! Thank you!! 01:23:16 Arnold John Bulanadi: 01:23:20 I will join today! Robert Kaplinsky: 01:23:22 Thank you! Francis Kisner: Thanks for the session. 01:23:24 01:23:25 Faith Peddie: Here is some more information on this month's issue of MTLT https://www.nctm.org/uploadedFiles/Conferences_and_Professional_Development/Webinars and Webcasts/Webcasts/MTLT July eTOC.pdf 01:23:26 Kim Petersen: I don't think the text to 44222 works for people from other countries. 01:23:26 Stephenia Courtney: Thank You! Melonie Smith: Thanks, Robert! 01:23:32 01:23:48 Susan Shuart: Thank you! Faith Peddie: @Ivette, Yes the certificate will come tomorrow 01:23:56 01:23:58 Faith Peddie: Here is some more information on this month's issue

of MTLT

https://www.nctm.org/uploadedFiles/Conferences and Professional Development/Webinars _and_Webcasts/Webcasts/MTLT_July_eTOC.pdf Abigail Santiago: Thank you!! 01:24:04 01:24:07 Rhonda Homberg: great class - Thank you 01:24:09 NITIN MALVIYA: thank you Honey Sacro Swem: Always love learning from you, Robert! I 01:24:17 also registered for the asynchronous Open Middle PD MICHAEL KAROLEWICZ: Thanks! 01:24:20 01:24:25 Chonda Long: https://www.nctm.org/uploadedFiles/Conferences_and_Professional_Development/Webinars _and_Webcasts/Webcasts/MTLT_July_eTOC.pdf 01:24:27 Christine Bucciero: thank you! 01:24:38 Robert Kaplinsky: robertkaplinsky.com/nobots for international Jennifer Collier: Love it! Thank you! 01:24:40 norobots 01:24:42 Robert Kaplinsky: 01:24:43 Honey Sacro Swem: Looking forward to learning more from you, Robert! Melonie Smith: How do you register for the open middle workshop? 01:24:43 01:24:44 Shashidhar Belbase: Thank you for the great presentation ! 01:24:51 Faith Peddie: robertkaplinsky.com/norobots is the website with tonight's resources - in case you were not able to use the text feature. Here is some more information on this month's issue 01:24:53 Faith Peddie: of MTLT https://www.nctm.org/uploadedFiles/Conferences and Professional Development/Webinars _and_Webcasts/Webcasts/MTLT_July_eTOC.pdf 01:25:00 Shonel fraser: Thanks! Elaine Dupree: Wonderful 01:25:03 thank you, wonderful 01:25:20 dana dulzo: Thank you Robert and NCTM!!! 01:25:22 Noe Eugenio: 01:25:27 CATHY SMITH: Awesome. Goodnight. 01:25:29 Dewey Gottlieb: Great job Robert! PALOMA CARRERA-ANDINO: thank you 01:25:30 Dewey Gottlieb: And great job facilitating Jen! 01:25:37 Donna Misciagna: Thank you so much for sharing your work. 01:25:39 Ratu Ilma Indra Putri: 01:25:41 Thank you... Barbara Boschmans: Thank you! 01:25:45 01:25:53 Isabel Arcaya: great, Thanks I loved it 01:25:58 Suzannah Young: thank you!! Thanks, and especially thanks for your honesty! 01:26:03 Tanya Landry: Emerson Roman Sanchez: ¡Gracias! from Mexico City 01:26:16 Jonathan Marcovitz: 01:26:17 Thanks. Winnica McLean: Thank you, thank you 01:26:25 Emerson Roman Sanchez: I just started following you on twitter. 01:26:33 01:26:36 Trena Wilkerson: wonderful! 01:26:37 Lisa Cady: Very inspiring! Thank you. Good night.