

00:18:05 Trena Wilkerson: Hello from Waco, TX!  
00:18:25 Christiana Dellota: Maryland  
00:18:33 Ahmad Queenan: maryland  
00:18:35 sandra Valentin: This is my first one  
00:18:36 Sharon Black-MacKinnon: Good evening from New Brunswick Canada. This  
is my 74th session  
00:18:37 Robin Behrman: Ft. Lauderdale Florida  
00:18:40 Maria Padiernos: Hello from Detroit, MI  
00:18:40 Delise Andrews: Delise Andrews from Nebraska. This is 5 or 6 for me  
I think.  
00:18:42 Lesly Brown: Hello-Tennessee  
00:18:42 CINDA HOLLAND: Berea, KY  
00:18:45 Catherine Abbott: Hello from Maryland. 50+  
00:18:48 Tanya Landry: Baton Rouge, just over 40  
00:18:49 Alicia Kaplan: Good evening from New York City  
00:18:51 Carol Matsumoto: Hi from Winnipeg  
00:18:51 Helene Alalouf: Hi from NYC> Hope you are all well!  
00:18:51 Tracy Echelle: Maryland 6 sessions  
00:18:52 Allison Miller: Hello from West Virginia!  
00:18:53 Macobia Harris: Hi from DeSoto, Tx  
00:18:54 Andrea Rochman: Andrea Rochman - NJ  
00:18:55 Brenda McNeese: Brenda Las Vegas  
00:18:56 LANY JAMERO: good morning from Philippines  
00:18:57 Katelyn Brophy: Greetings from Chesterfield, VA  
00:18:58 Kristina Hofer: Hello from Oregon!  
00:18:58 MYLA DETECIO: good morning from the Philippines. if i am not  
mistaken this is my 32nd session  
00:19:03 Myra Collins: Hello from Greentop, MO  
00:19:03 kim bolf: Hello From Duluth MN  
00:19:04 Tynica Lewis: South Korea  
00:19:05 Mark Fili: Good evening from NYC.  
00:19:05 Angelica Ciernia: Round Rock, TX. 3  
00:19:06 Jill Gough: Jill here..I'm in Marietta, GA right now.  
00:19:07 Joanne Copeland: Joanne from Ligonier, PA  
00:19:11 Felice Sigal: Hello from South Florida  
00:19:12 Catherine Abbott: You have the TX music of the tongue  
00:19:13 Ramona Chandler: Southern California  
00:19:14 Nora Marasigan: Hello from Philippines.  
00:19:15 Annette Krimmer: San Antonio, 7  
00:19:15 Heather Hoepfner: hello from Portland,Oregon  
00:19:23 Ana Alcaraz: Hi from Atlanta, GA  
00:19:25 Desiree Merritt: Hello from Maine  
00:19:28 Rosalyn Bantay: Hi from Philippines  
00:19:28 Daniel Irving: Hello from North Providence, RI!  
00:19:33 Thy Dinh: Hi from SoCal, this is my 40 session prob but I've  
lost count  
00:19:34 Cathy Smith: Hello from Fort Meade, Maryland  
00:19:36 Mary France Imperial: hello from Philippines  
00:19:37 Meg Dugan: Hello from Webster, New York  
00:19:38 David Barnes: Hello from Lansdowne, VA!

00:19:39 Lance Brauchla: Welcome from Ege, IN  
00:19:42 William Driscoll: hi from San Francisco!  
00:19:45 Wendy Iacobucci: Hello from Eastlake, Ohio  
00:19:47 Shashidhar Belbase: Hello from the UAE !  
00:19:49 Dawn Furstenberg: Dawn from PORTLAND OR  
00:19:53 Dave Hankin: Hello again from Globe, Arizona!  
00:19:56 Elmer Mayol: Hello from Cebu Philippines  
00:19:57 paloma carrera-Andino: hi from El Paso, TX  
00:20:13 kim bolf: Duluth MN  
00:20:24 Tynica Lewis: 2nd  
00:20:25 Cathy Smith: 8th  
00:20:26 Allison Miller: several  
00:20:28 Rachel Lee: First  
00:20:28 Brenda McNeese: probably 15  
00:20:30 Vicente Lopez: Chicago  
00:20:31 Beth Kobett: Beth from Maryland!  
00:20:33 kim bolf: 15  
00:20:34 paloma carrera-Andino: All but 3 of them  
00:20:34 CINDA HOLLAND: 3rd  
00:20:34 Ramona Chandler: Probably mu 50th  
00:20:36 Lance Brauchla: 21  
00:20:36 Myra Collins: Close to 40  
00:20:36 Lou Darcera: Maryland  
00:20:38 Brenda McNeese: 100 days  
00:20:38 Ana Alcaraz: too many to count!  
00:20:39 Denise Walston: hi from Chesapeake, Virginia. lots  
00:20:44 Mark Fili: I have taken ... a lot!!!  
00:20:45 Vicente Lopez: Chicago 2  
00:20:46 Denise Huddlestun: Hello from Atlanta, GA  
00:20:46 Catherine Abbott: I am going back to catch the ones I missed  
in the beginning.  
00:20:47 Jacqueline Colbourne: 35  
00:20:47 Lisa Lambuth: Hello from Los Angeles, CA. About 22!  
00:20:58 Mary France Imperial: close to 50  
00:20:59 Helene Alalouf: I have been to 3/ week for months! Thanks!! Learned  
soo much! Grateful to all.  
00:21:12 Jonathan Marcovitz: Greeting from Fort Lauderdale  
00:21:13 Honey Sacro Swem: Hello from Redlands, CA  
00:21:25 Zita Amor Mankos: Zita Amor C. Mankos, New York  
00:21:25 Don Duong: hello from Portland.  
00:21:35 Lisa Aldous: Hello from Arnold, Maryland!  
00:21:40 Jacquelyn Smith: Webster NY  
00:21:41 Kimberly Burch: Hello from North Texas!  
00:21:48 Sharon Black-MacKinnon: day 74  
00:21:50 Leslie Texas: Hi from Louisville, KY  
00:21:53 Jennifer Carroll: Hello from the mountains of North Carolina  
00:22:02 LeAnna Deveaux-Miller: Good evening from NEW PROVIDENCE, THE  
BAHAMAS  
00:22:03 Sophia Schoop: Hello from Edmonds, Washington  
00:22:05 Eric Von Valdez: Happy learning from KSA

00:22:11 Keri Naso: hi from Long Island  
00:22:13 Amy Rowe: Hello from Brooklyn, NY! Amy Rowe  
00:22:15 Cherish Alberts: Hi from Virginia!  
00:22:22 Maria Woehl: Hi from San Diego, CA!  
00:22:33 Nancy Cooper: Hi from Portland, Maine!  
00:22:40 Denise Huddleston: It's great to have the recordings available!  
Thanks!  
00:23:07 Lorie Huff: Hello from Fayetteville, Arkansas  
00:23:13 Kristie Chandler: Hello from VA!  
00:23:17 Vicente Lopez: How to change it to all panelists and attendees?  
00:23:20 Alexandra Collison: Hi from Webster NY Teachers!  
00:23:28 Bobby Flores: Oops, hello from Houston, TX!  
00:23:36 Stephenia Courtney: Hello from Las Vegas, NV  
00:23:39 Jet Yeung: Hello Everyone: Jet from Henderson, Nevada  
00:24:01 Tara Johnson: Hello from Louisville, KY  
00:24:11 Nadine Richards-Ramsey: Hello from Glen Burnie, MD  
00:24:19 Eboney McKinney: so cute!  
  
00:24:29 Jeannine Lavigne: Hi from Maine  
00:24:34 Shinu John: Hello from Muscat  
00:24:36 Lawanda Mahomes: Hi everyone! Chicago, Illinois  
00:24:50 Catherine Abbott: "Math with Bad Drawings" by Ben Orlin  
00:25:09 Caren Rawlins: hi from chicago  
00:25:31 Allison Miller: I love this book! I love all of Peter Reynolds'  
books!  
00:25:44 Sharon Black-MacKinnon: Great book!!  
00:25:45 Trena Wilkerson: Me, too! Great book!  
00:26:14 Evelyn Amoah: Hello from Ontario! Been participating on Dot Day  
for many years...never considered it for math  
00:26:32 Cheryl Ann Doyle E Barran: Hi from Bronx, ny  
00:26:32 Debra Cowan: Hello, from Mastic Beach NY  
00:26:32 Maria Padiernos: What do you mean children....I have a hard  
time if I do not draw something to make me see the problem!  
00:26:37 Carly Jardinier: Hello from MD, USA :)  
00:26:49 Rachelle Broggin: Thanks for the advice we will be reading  
first week of school for my first graders.  
00:27:01 C Daniel-Poleon: Hi everyone. This is Carmel. Greetings from  
Desoto Texas.  
00:27:23 Susan Bardenhagen: Hey, from Manassas, northern VA, outside DC!  
00:27:35 Allison Keever: Hello from North Carolina!  
00:27:44 Harjeet Kaur Ubbi: Hello from Oman  
00:28:13 Sandra Puglisi: Hello from New Rochelle, NY  
00:28:32 JaDawn Wagstaff: Buffalo, NY  
00:28:42 Catherine Abbott: Wow! I love these slides. Great posters for  
classroom (or virtual classroom).  
00:28:44 Robin Schwartz: Is she using Prezi?  
00:28:59 Robin Schwartz: outer square - missing rect  
00:29:02 Cathy Smith:  $36-6=30$   
00:29:10 Catherine Abbott: 30 dots 5 times 6  
00:29:11 Lance Brauchla: 30

00:29:12 Robin Schwartz:  $6 \times 6 - (3 \times 2)$   
 00:29:12 Tanya Landry:  $6 \times 6 - 2 \times 3 = 30$   
 00:29:13 Chonda Long:  $36 - 6 = 30$   
 00:29:14 Bobby Flores:  $30, 6 \times 6 - 2 \times 3 = 36 - 6 = 30$   
 00:29:15 Padgett Shoemake:  $6 \times 6 = 36$   $36 - 6 = 30$   
 00:29:15 Delise Andrews:  $30 = 5$  groups of 6  
 00:29:18 Katie Huber:  $36 - 6 = 30$ . I see a  $6 \times 6$  and then missing 6 in the middle.  
 00:29:19 Sharon Black-MacKinnon:  $(6 \times 6 - 3 \times 2) = 30$   
 00:29:20 Christiana Dellota: I see  $6 \times 6$  less  $2 \times 3$   
 00:29:20 Lisa Aldous:  $18 + 6 + 6 = 30$   
 00:29:20 Caren Rawlins:  $36 - 6 = 30$   
 00:29:20 Ana Alcaraz:  $6 * 4 + 2 * 3$   
 00:29:23 Harjeet Kaur Ubbi:  $36 - 6 = 30$   
 00:29:24 Aaron Tenenbaum:  $36 - 6 = 30$   
 00:29:24 Sandi Dlugonski: 5 rows of 6 and 2 rows of 3 = 36  
 00:29:25 Tamara Walter:  $6 \times 6 - (2 \times 3)$   
 00:29:25 Susan Bardenhagen:  $6 \times 6 = 36$   $36 - 6 = 30$   
 00:29:25 JAMIE BREITMAN: 30  
 00:29:26 Lorie Huff: 30  
 00:29:26 Tamara Dixon:  $6 \times 6 = 36$   $36 - (2 \times 3) = 30$   
 00:29:26 Brenda McNeese:  $6 \times 6$  with 6 missing  
 00:29:28 Jeannie Kim:  $(6 \times 6) - (3 \times 2)$   
 00:29:28 Robin Schwartz: 3 groups of 6 3 groups of 3  
 00:29:29 Nicole Walden: 6 by 6 is 36 but 2 by 3 is 6 missing so  $36 - 6$   
 00:29:29 Rachelle Broggin:  $6 + 6 + 4 + 4 + 4 + 6$   
 00:29:29 Peta-Gaye Benjamin:  $10 * 3$   
 00:29:29 Kelley Atwood:  $(6 \times 6) - (3 \times 2)$   
 00:29:30 Paige Williams:  $6 \times 6 - 2 \times 3 = 30$   
 00:29:31 Florentia Spires:  $20 + 10 = 30$  dots  
 00:29:37 Lisa Crawford:  $6 \times 6 - 2 \times 3$   
 00:29:37 Catherine Abbott: 30 4 times 6 plus 4 plus 2  
 00:29:38 Nadine Richards-Ramsey:  $36 - 6 = 30$   
 00:29:39 Denise Huddlestun:  $36 - 6 = 30$   
 00:29:40 Lance Brauchla: square with a rectangle inside  
 00:29:40 Emerlina Binuya:  $6 \times 6 = 36$   $- 6 = 30$   
 00:29:41 Desiree Merritt:  $6 \times 6 - 6 = 30$   
 00:29:41 Tracy Echelle: 30  $6 \times 6 - 6$   
 00:29:44 Chris Kelley:  $6 \times 6 - (2 \times 3) = 30$   
 00:29:45 Sophia Schoop:  $6 \times 6 - 2 \times 3 = 30$   
 00:29:45 Joy Duncan:  $36 - 6 = 30$   
 00:29:46 Jenny Sagrillo:  $9 + 9 + 6 + 4 + 2 = 30$   
 00:29:46 Joanmarie Kulinka:  $32 - 6$   
 00:29:47 Carlos Muller:  $6 \times 6 - 3 \times 2 = 30$   
 00:29:47 Jamie Popov: 5 groups of 6  
 00:29:47 Cheryl Ann Doyle E Barran:  $6^2 - 2 \times 3$   
 00:29:47 Christine Parris: 30  
 00:29:47 Robin Schwartz: Looks amazing!!  
 00:29:49 Kristen Glessner:  $6 \times 5 = 30$   
 00:29:50 Denise Flick:  $36 - 6$

00:29:52 Bony Cellars:  $(6 \times 6)$  dots minus  $(2 \times 3)$

00:29:53 Catherine Abbott: Put name of paper in chat room?

00:29:54 Aisha Sharrieff: 30, a  $6 \times 6$  area minus a  $3 \times 2$  area

00:29:54 Helene Alalouf:  $(6 \times 4) + 4 + 2 = 30$

00:29:56 Lorie Huff: 2 groups of 6 + 3 groups of 4 + 6

00:29:57 Amy Rowe: I see 24 dots. The chat made some of the picture  
hide. I'm remembering 3 rows of 5

00:29:57 Jenny Sagrillo:  $6 * 6 - 2 * 3 = 30$

00:30:02 Alexandra Collison:  $3 \times 6 - 18$  and  $2 \times 3$  and 6 more = 30

00:30:02 Arelys Arenas: exactly

00:30:07 Annette Krimmer:  $30 = (6 \times 3) + 4 + 2 + 6$

00:30:08 C Daniel-Poleon:  $(6 \times 6) - 6$

00:30:09 Kimberly Spaight: I see 30.  $12 + 3 + 6 + 9$ . I grouped the dots

00:30:17 Eboney McKinney: 12 in the first columns,  $3 \times 3 = 9$ , and 9 in  
L

00:30:21 Kristen Glessner:  $6 \times 3 + 6 + 6$

00:30:27 Ron Sage:  $6 \times 4 + 3 \times 3$

00:30:38 Peta-Gaye Benjamin: yes'

00:30:42 Caren Rawlins: yes

00:30:42 Catherine Abbott: Nope

00:30:44 Elmer Mayol:  $6 \times 6 - 6$

00:30:44 Rachelle Broggin: no

00:30:46 Amy Rozzi: yes

00:30:52 Rebekah Maranzano:  $(6 \times 4) + (2 \times 3) = 30$

00:30:57 Cathy Smith: yes, the second illustration

00:30:59 Laura Crawley: yes

00:31:00 Ahmad Queenan: yes

00:31:02 Arelys Arenas: great idea to find the shaded area

00:31:10 Tynica Lewis:  $30 = 4(6) + 2(2) + 2$

00:31:11 Jet Yeung: yes

00:31:17 Jennifer Carroll:  $3 * 6 + 6 * 2 = 30$

00:31:23 Aisha Sharrieff: yesssss

00:31:27 Catherine Abbott: Figure 5 is close.

00:31:35 Arelys Arenas: area will be the same using different expressions

00:31:49 Amy Rowe: Best math textbooks and books to use at home for  
math anxious students of all levels?

00:31:53 Trena Wilkerson: I think it is  
<https://paper.bywettransfer.com/>

00:32:10 Lisa Lambuth:  $6 \times 2 + 3 \times 4 + 6 = 12 + 12 + 6 = 30$

00:32:28 Mark Fili: Thank you Trena...

00:32:42 Rachelle Broggin: Thank you Trena

00:32:44 Trena Wilkerson: Sure! It looks interesting.

00:33:11 Catherine Abbott: Sketching...absolutely. If you can draw it,  
you can probably solve it.

00:33:27 Rachelle Broggin: This is great!!!

00:33:47 Nadine Richards-Ramsey: Love this!!

00:33:52 Kelley Atwood: Can you share This?

00:34:11 Eboney McKinney: That is a great example of FA

00:34:12 Maria Padiernos: This is so cool!

00:34:19 Cherish Alberts: Really neat!!

00:34:26 Catherine Abbott: oooo pretty  
00:34:27 Alexandra Collison: YEAH, MTBOS!  
00:34:29 Robin Schwartz: I will be sharing this with preservice teachers  
Thanks Jill!!  
00:34:46 Catherine Abbott: What about the in-service teachers?  
00:34:48 Brooke Smith: where do you get the pictures  
00:34:56 Sarah Thomas: They are all MATH students  
00:35:11 Robin Schwartz: that too Catherine :) I will be teaching a mix  
00:35:12 Arelys Arenas: great for factoring at this level  
00:35:16 C Daniel-Poleon: very engaging  
00:35:25 Nicole Walden: This is part of their math story.  
00:35:52 Ebony McKinney: @Nicole, LOVE that...their math story  
00:36:03 Amy Rowe: Do you address the difference between remembering,  
which I find to be natural, and memorizing, which I find to be un-generalizable and  
un-useful conceptually?  
00:36:34 Nicole Walden: Ebony - it came from another 100day webinar  
00:36:50 Catherine Abbott: Jo Boaler's work says "fingers okay"  
00:37:34 Cathy Smith: 5  
00:37:35 C Daniel-Poleon: great point....understanding conceptually  
00:37:42 JaDawn Wagstaff: 5  
00:37:43 Cathy Smith: 3+2  
00:37:47 Nadine Richards-Ramsey: 5  
00:37:48 Robin Schwartz: 2  
00:37:48 Robin Schwartz: 2  
00:37:49 Robin Schwartz: 1  
00:37:49 Marianne Mammon:  $4 + 1 = 5$   
00:37:50 Dave Hankin:  $(2 \times 2) + 1 = 5$   
00:37:52 Lisa Aldous:  $2+2+1=5$   
00:37:52 Tracy Echelle:  $4 + 1$   
00:37:53 Jamie Rossi:  $2 + 2+1$   
00:37:53 Amy Rowe:  $2 \times 2$  plus 1.  
00:37:53 Ebony McKinney:  $2 + 2 + 1=$   
00:37:53 Nadine Richards-Ramsey:  $4 + 1$   
00:37:54 Bobby Flores:  $5=3+2=6-1$   
00:37:57 Catherine Abbott: <http://www.visualpatterns.org/>  
00:37:57 Tamara Walter:  $2+2 +1$   
00:37:57 Denise Huddlestun:  $2 \times 2 + 1= 5$   
00:37:57 Lorie Huff:  $4 + 2$   
00:37:57 Katie Huber:  $3+2 \quad 2+2+1$   
00:37:57 Stephenia Courtney:  $5 \quad 3$  plus 2  
00:37:58 Laura Crawley:  $4+1$  or  $3+2$   
00:37:58 Caren Rawlins:  $(2 \times 3)-1$   
00:37:59 Paige Williams:  $2+2=1$   
00:37:59 Kimberly Spaight:  $4+1$   
00:38:00 Cheryl Ann Doyle E Barran:  $2+2+1$   
00:38:00 Carly Jardinier:  $3 \times 2 - 1$   
00:38:01 Nicole Walden:  $4+1$   
00:38:01 Haydee Rojas-Avila:  $4+1$   
00:38:01 Ron Sage:  $2 \times 2 +1$   
00:38:01 Lorie Huff:  $3 +2$

00:38:02 Sandi Dlugonski:  $2 \times 2 + 1$   
 00:38:02 Angelita Beltran:  $2 \times 2 + 1$   
 00:38:02 Desiree Merritt:  $2 \times 2 + 1$   
 00:38:03 Arelys Arenas:  $2 + 3$ ,  $2 \times 2 + 1$   
 00:38:03 Christiana Dellota:  $2^2 + 1$   
 00:38:03 Trena Wilkerson: Not Prezi but  
<https://paper.bywetransfer.com/>  
 00:38:03 Sharon Black-MacKinnon:  $4 + 1$ ;  $3 + 2$ ;  $6 - 1$   
 00:38:04 Peta-Gaye Benjamin: 5 individual  $2 + 2 + 1$   
 00:38:04 Denise Huddlestun:  $3 = 2$   
 00:38:05 Brenda McNeese: group 4 then add 1  
 00:38:05 Chonda Long: Four duckies and then an additional 1  
 00:38:06 Harjeet Kaur Ubbi:  $2 \times 2 + 1 = 5$   
 00:38:06 Amy Rozzi:  $3 + 2$   
 00:38:07 Cherish Alberts: 4 plus 1, 3 plus 2,  $2 \times 3$  less 1  
 00:38:07 Jamie Rossi:  $4 + 1$   
 00:38:07 MYLA DETECIO:  $3 \times 2 - 1$   
 00:38:08 Peta-Gaye Benjamin:  $4 + 1$   
 00:38:08 Lawanda Mahomes:  $3 + 2$   
 00:38:08 Eboney McKinney:  $2 + 3$   
 00:38:08 Paige Williams:  $3 + 2$   
 00:38:10 JaDawn Wagstaff: 4 and 1 or 2 and 2 and 1  
 00:38:10 Lisa Aldous:  $3 \times 2 - 1$   
 00:38:12 Dawn Furstenberg:  $4 + 1$   
 00:38:13 Janet Bernard:  $3 + 2$  and  $4 + 1$   
 00:38:13 Laura Crawley: oh - and  $6 - 1$   
 00:38:14 Carlos Muller:  $3 + 2$ ,  $4 + 1$   
 00:38:17 Rachelle Broggin:  $3 + 2$ ,  $2 + 3$ ,  $4 + 1$ ,  $1 + 4$   
 00:38:20 Lisa Lambuth:  $4 + 1$ ,  $3 + 2$ ,  $2 + 2 + 1$ ,  $6 - 1$   
 00:38:21 Cheryl Ann Doyle E Barran:  $6 - 1$   
 00:38:24 Kathleen McFadden:  $2 + 2 + 1$   
 00:38:24 Denise Walston:  $3 + 2$ ;  $4 + 1$   
 00:38:25 Florentia Spires:  $(6 - 1)$   
 00:38:25 Nicole Walden: 1 square and  $1/4$  square  
 00:38:27 WARASABON DOMINIKUS:  $2 \times 3 - 1$   
 00:38:29 MYLA DETECIO:  $2 \times 3 - 1$   
 00:38:31 Maria Padiernos: This is how I learned SET THEORY concepts in  
 first grade!  
 00:38:31 JAMIE BREITMAN:  $3 + 2$   $4 + 1$   $2 \times 2 + 1$   
 00:38:33 Caren Rawlins:  $4 + 1$   
 00:38:34 Evelyn Amoah:  $4 + 1$ ,  $3 + 2$  and  $6 - 1$   
 00:38:34 Jet Yeung:  $2 + 2 + 1 = 5$   
 00:38:46 Catherine Abbott: That's why you cut and paste  
 00:38:48 Eboney McKinney: YES!  
 00:39:10 C Daniel-Poleon:  $4 + 1$   
 00:39:10 Catherine Abbott: Or....4 and 1  
 00:39:38 Trena Wilkerson: Jason do you mean a certificate like? If so  
 that will come tomorrow in your email.  
 00:39:46 Cathy Smith:  $12 - 1$   
 00:39:48 Amy Rowe:  $3 + 3 + 3 + 2 = 11$

00:39:49 Dawn Furstenberg:  $9+2$   
 00:39:49 Cathy Smith:  $1$   
 00:39:50 Catherine Abbott:  $12-1=11$   
 00:39:50 Sharon Black-MacKinnon:  $12-1$   
 00:39:51 Carly Jardinier:  $9 + 2$   
 00:39:54 Desiree Merritt:  $3 \times 3 + 2 = 11$   
 00:39:58 Sandi Dlugonski:  $3 \times 3 + 2 = 11$   
 00:39:58 Ron Sage:  $12 + 2$   
 00:39:58 MYLA DETECIO:  $3 \times 4 - 1 = 11$   
 00:39:58 Cheryl Ann Doyle E Barran:  $11, 12 - 1$   
 00:39:58 Carly Jardinier:  $9 + 2 = 11$   
 00:39:59 Katie Huber:  $3 \times 3 + 2 = 11$   
 00:39:59 Florentia Spires:  $8 + 3 = 11$   
 00:39:59 Kimberly Spaight:  $9 + 2 = 11$   
 00:40:00 Cherish Alberts:  $9 \text{ plus } 2$   
 00:40:00 Marianne Mammon:  $9 + 2 = 11$   
 00:40:00 Sharon Black-MacKinnon:  $9 = 2 = 11$   
 00:40:00 Denise Huddlestun:  $3 \times 3 + 2 = 11$   
 00:40:01 Lisa Aldous:  $9 + 2 = 11$   
 00:40:01 Angelita Beltran:  $3 \times 3 + 2$   
 00:40:01 Jamie Rossi:  $9 + 2 = 11$   
 00:40:01 Brenda McNeese:  $9 \text{ and } 2 = 11$   
 00:40:03 Rachelle Broggin:  $6 + 5 = 11$   
 00:40:04 Christiana Dellota:  $I \text{ see } 3^2 + 2, \text{ which is } 11$   
 00:40:04 Ron Sage:  $12 = 2 = 14$   
 00:40:06 Amy Rowe:  $I \text{ see a row of } 3 \text{ ducks. And another one. And another one. Then } 2 \text{ more ducks.}$   
 00:40:06 Lorie Huff:  $9 + 2 = 11$   
 00:40:06 Harjeet Kaur Ubbi:  $3 + 3 + 3 + 2 = 11$   
 00:40:07 Lisa Lambuth:  $3, 6, 9, 11$ -is how I counted them  
 00:40:07 Jenny Sagrillo:  $4 \times 3 - 1 = 12$   
 00:40:08 Janet Bernard:  $4 + 4 + 2 = 11$   
 00:40:08 Tara Johnson:  $4 + 4 + 1 = 11$   
 00:40:08 Jet Yeung:  $3 + 3 + 3 + 2 = 11$   
 00:40:09 Dave Hankin:  $3 \times 3 + 2 = 11$   
 00:40:10 Paige Williams:  $3 + 3 + 3 + 2 = 11$   
 00:40:11 Jeannie Kim:  $4 + 4 + 3 = 11$   
 00:40:11 Lisa Aldous:  $12 - 1 = 11$   
 00:40:12 Peta-Gaye Benjamin:  $4 + 4 + 3 = 11$   
 00:40:14 Laura Crawley:  $9 + 2, 3 \times 3 + 2 = 11$   
 00:40:14 Jamie Rossi:  $4 + 4 + 3 = 11$   
 00:40:15 Lorie Huff:  $8 + 3 = 11$   
 00:40:17 Cathy Smith:  $3 \times 4 - 1 = 11$   
 00:40:17 MYLA DETECIO:  $4 \times 3 - 1 = 11$   
 00:40:17 Tracy Echelle:  $3 \text{ groups of } 3 \text{ and } 2 = 11$   
 00:40:18 Denise Walston:  $12 - 1 \text{ is } 11$   
 00:40:18 Mary France Imperial:  $4 + 4 + 3 = 11$   
 00:40:19 Caren Rawlins:  $2 \times 4 + 3 = 11$   
 00:40:19 Angelica Ciernia:  $3 \times 3 + 2$   
 00:40:20 Jamie Rossi:  $12 - 1 = 11$



00:40:21 Paige Williams:  $4+4+3=11$

00:40:21 Eboney McKinney:  $3+3+3=9+1=10+1=11$

00:40:22 Denise Huddlestun:  $(4 \times 3) - 1 = 11$

00:40:23 Nadine Richards-Ramsey:  $3 + 3 + 3 + 2 = 11$

00:40:23 Jennifer Carroll:  $3*3+2+11$

00:40:23 Jenny Sagrillo:  $3*3+2=11$

00:40:25 Denise Flick:  $9 + 2 = 11$

00:40:25 Thy Dinh:  $3 \times 3 + 2 = 11$

00:40:29 Melonie Smith:  $4+4+3$

00:40:31 Amy Rowe: No way can I subitize 5. I learned math in my 40s - then immediately started teaching it :)

00:40:35 Aisha Sharrieff:  $4*3) -1= 11$

00:40:35 Jenny Sagrillo:  $4*3-1=11$

00:40:39 Myra Absin:  $9+2=11$

00:40:40 Annette Krimmer:  $3x3+2=11$

00:40:44 Cherish Alberts:  $9 + 2 =11, 3 \times 3 + 2 =11$

00:40:49 Sharon Black-MacKinnon:  $4+4+3=8+3=11$

00:40:50 Arelys Arenas:  $12 - 1 = 11$

00:40:51 Ron Sage:  $3 + 3 + 3 + 2 =11$

00:40:51 Eboney McKinney: So smart! Pre draw it!

00:40:52 Janet Bernard:  $3+3+3 + 2$

00:40:55 Jet Yeung:  $4+4+3=11$

00:40:56 WARA SABON DOMINIKUS:  $4x2+3=11$

00:41:15 Nicole Walden: Certainly helps with composite figures.

00:41:32 Lisa Lambuth:  $6+6-1=11$

00:41:37 Trena Wilkerson: Great way for students to share their thinking!

00:41:44 Stephanie Smith: @ Amy Rose - are there certain books that helped you develop an affinity for math that you would recommend?

00:42:01 Catherine Abbott: Book "Math Curse!"

00:42:02 Dave Hankin:  $4x4 + 3 = 19$

00:42:05 Sharon Black-MacKinnon:  $20-1=19$

00:42:06 Cathy Smith:  $4x5-1=19$

00:42:08 Janet Bernard:  $20-1=19$

00:42:10 Paige Williams:  $4x4+3$

00:42:12 Lisa Aldous:  $4x4+3=19$

00:42:12 Marianne Mammon:  $(4x4)+3$

00:42:12 Jenny Sagrillo:  $4*5-1=19$

00:42:12 Carly Jardinier:  $5 \times 4 - 1 = 19$

00:42:13 Denise Flick: Authors Fosnot and Vandewalle

00:42:15 Sandi Dlugonski:  $5x4-1=19$

00:42:15 Denise Huddlestun:  $5 \times 4 - 1 = 19$

00:42:17 MYLA DETECIO:  $5x3+4=19$

00:42:17 Dawn Furstenberg:  $4X4+3 = 19$

00:42:17 Lorie Huff:  $6 \times 4 - 1 =23$

00:42:17 Sharon Black-MacKinnon:  $4x4=3=19$

00:42:18 Katie Boatright:  $4x5=20-1=19$

00:42:18 Jeannie Kim:  $(4x4) + 3 = 19$

00:42:18 Desiree Merritt:  $4x5-1=19$

00:42:19 Amy Rozzi:  $5x4 - 1 = 19$

00:42:19 Kimberly Spaight:  $4 \times 4 + 3 = 19$

00:42:19 Amy Rowe: I wrote myself a book after reviewing several hundred books by others. This draft book is the basis of after-school math programs I've led. I

00:42:19 Bobby Flores:  $4 \times 4 + 3 = 5 \times 4 - 1 = 5 \times 3 + 4 = 19$

00:42:19 Tamara Walter:  $4 \times 4 + 3$

00:42:20 Catherine Abbott:  $4 \times 5 = 1$

00:42:20 Laura Crawley:  $5 \times 3 + 4 = 19$

00:42:20 Florentia Spires:  $16 + 3 = 19$

00:42:20 Harjeet Kaur Ubbi:  $4 \times 4 + 3 = 19$

00:42:21 Katie Huber:  $5 + 5 + 5 + 4 = 19$

00:42:21 Allison Miller:  $4 \times 4 + 3 = 19$

00:42:23 Lisa Lambuth:  $4 \times 5 - 1 = 19$

00:42:24 Rachelle Broggin: I am using the same structure.

00:42:24 Melonie Smith:  $5 \times 3 + 4 = 19$

00:42:25 Lisa Aldous:  $5 \times 4 - 1 = 19$

00:42:25 Peta-Gaye Benjamin:  $5 * 4 - 1$

00:42:26 Mary France Imperial:  $4 * 5 - 1 = 19$

00:42:28 Annette Krimmer:  $4 \times 5 - 1 = 19$

00:42:28 Jenny Sagrillo:  $4 * 4 + 3 = 19$

00:42:29 Catherine Abbott:  $4 \times 5 - 1 = 19$

00:42:30 MYLA DETECIO:  $4 \times 4 + 3 = 19$

00:42:32 Sharon Black-MacKinnon:  $15 = 4 = 19$

00:42:33 Ron Sage:  $16 + 3 = 19$

00:42:34 Stephenia Courtney: 3 5's plus 4

00:42:35 Paige Williams:  $5 \times 3 + 4 = 19$

00:42:35 Christiana Dellota: I see this pattern growing and now I would describe it as  $n^2 + (n-1)$

00:42:35 Janet Bernard:  $3 \times 5 + 4 = 19$

00:42:37 Nadine Richards-Ramsey:  $4 \times 4 + 3 = 19$

00:42:38 MYLA DETECIO:  $5 \times 4 - 1 = 19$

00:42:40 Caren Rawlins:  $5 \times 3 + 4 = 19$

00:42:41 Katie Boatright: I see one less than 5 groups of 4

00:42:41 Denise Flick:  $4 \times 4 + 3 = 19$

00:42:43 Cherish Alberts:  $4 \times 4 + 3 = 19$

00:42:45 Jamie Rossi:  $(2 \times 4) + (2 \times 4) + 3 = 19$

00:42:46 Tara Johnson:  $5 + 5 + 5 + 5 - 1 = 19$

00:42:48 Jennifer Carroll:  $4 * 4 + 3 + 19$

00:42:49 Denise Walston:  $4 \times 4 + 3$

00:42:55 Paige Williams:  $5 \times 4 - 1 = 19$

00:42:59 Melonie Smith:  $4 \times 4 + 3 = 19$

00:43:01 Cheryl Ann Doyle E Barran: I see it as  $4 + 4 + 4 + 4 + 3$ , then I think  $20 - 1 = 19$

00:43:04 Helene Alalouf: Interesting, once you showed us whole -1, that is what I used now, and faster, though not previously!

00:43:05 Catherine Abbott: It's not my bad spelling. It is my bad typing. ;)

00:43:10 Joanmarie Kulinka:  $3 \times 5 = 4 = 19$

00:43:20 Betty Stallings: Hello from Portsmouth, sorry for tuning in

late

00:43:20 Stephenia Courtney: 2p  
00:43:22 Paige Williams: good activity to do with students at the beginning of a zoom meeting, for warm up  
00:43:31 Stephenia Courtney: 20 minus 1  
00:43:32 Aisha Sharrieff:  $5*4-1$  or  $5*3+4$   
00:43:40 Amy Rowe: Main problem with books by others is that initial examples of new problem types fail to take advantage of old, fast part of brain that instantly recognizes 1, 2, and 3 items. 3 day old babies are proven to be able to do this. In my programs' draft book, all new problem types are introduced with drawings and 1, 2, and 3 (not 17/39ths divided by 38/47ths, for example) - small, visualizable numbers you can easily draw and count.  
00:43:42 Jet Yeung:  $4+4+4+4+3=19$   
00:43:52 Christiana Dellota:  $5^2 + 4 = 29$   
00:43:57 Dave Hankin:  $5 \times 5 + 4 = 29$   
00:44:00 Catherine Abbott: Add a row and long column.  
00:44:09 Cathy Smith:  $5 \times 6 - 1 = 29$   
00:44:11 Cherish Alberts:  $5 \times 5 + 4 = 29$   
00:44:11 Allison Miller:  $5 \times 5 + 4 = 29$   
00:44:14 Tanya Landry:  $5 \times 5 + 4 = 29$   
00:44:14 Marianne Mammon: 29  
00:44:16 Catherine Abbott:  $6 \times 5 - 1 = 29$   
00:44:17 Laura Crawley:  $5 \times 5 + 4 = 29$   
00:44:18 Desiree Merritt:  $5 \times 6 - 1 = 29$   
00:44:20 Rachel Lee:  $5 \times 6 - 1 = 29$   
00:44:21 Jenny Sagrillo:  $6 \times 5 - 1 = 29$   
00:44:21 Cheryl Ann Doyle E Barran: 29  
00:44:25 Sharon Black-MacKinnon:  $5 \times 6 - 1 = 29$   
00:44:25 Dave Hankin: add in another full row each time  
00:44:25 Lisa Aldous:  $5 \times 6 - 1 = 29$   
00:44:26 Denise Flick: 29? Didn't pay close enough attention.  
00:44:29 Ron Sage: perfect square ,  $5 \times 5 + 3 = 28$   
00:44:32 Annette Krimmer:  $5 \times 5 + 4$   
00:44:33 Stephenia Courtney: 29  
00:44:40 Cherish Alberts: 5 squared plus one less than the base  
00:44:50 Catherine Abbott: Growing patterns is great with my EL students.  
00:45:39 Amy Rowe: Also no jargon - plain English - to unload working memory, previously thought to hold 7 items, now 4, less in traumatized students.  
00:46:18 Sharon Black-MacKinnon: number of ducks increased by 10  
00:46:27 Ron Sage:  $5 \times 5 + 4 = 29$   
00:46:31 Sharon Black-MacKinnon: from the previous figure  
00:46:33 Cheryl Ann Doyle E Barran: 2 difference  
00:46:34 Catherine Abbott: Stress of any kind blocks working memory.  
00:46:34 Amy Rowe: No "commutative property." Yes "turn the array on its side."  
00:46:46 Amy Rowe: Catherine Abbott: Absolutely!  
00:46:48 Marianne Mammon:  $(\text{Fig\#} + 1)^2 + \text{Fig\#}$   
00:46:48 Cheryl Ann Doyle E Barran:  $4 \times 6 + 5$   
00:47:08 Maria Padiernos: arithmetic series

00:47:36 Catherine Abbott: 12x11-1  
00:47:36 Brenda McNeese: is it  $8 \times 10 + 9$   
00:47:38 Christiana Dellota: is figure 10 would be  $131$  since  $n^2 + 3n + 1$   
00:48:04 Caren Rawlins:  $(10 \times 8) + 9 = 89$   
00:48:32 Catherine Abbott: I love tying the patterns to the number, symbols and later variables.  
00:48:53 Maria Padiernos: You are one excuse my French "BADASS" educator and I say that with much respect!!!  
00:49:25 Catherine Abbott: ???  
00:49:53 Eboney McKinney: lol! Yes! That is fantastic! Such great learning! @Maria  
00:50:04 Angela Fugate: awesome  
00:50:05 Catherine Abbott: -Again....loads of patterns at <http://www.visualpatterns.org/>  
00:50:12 David Barnes: Hi Kathy. Glad you could join us tonight.  
00:50:22 Nicole Walden: Catherine - thx  
00:50:23 Nancy Cooper: This is awesome!!  
00:50:39 Angela Fugate: thanks  
00:50:39 Mohamed T: Super  
00:50:48 Russasmita Sri Padmi: agree!  
00:50:51 MYLA DETECIO: great ideas  
00:50:58 Trena Wilkerson: Remember to change your Chat to All Panelists and attendees so it goes to everyone. :-)  
00:51:04 Diane Anderson: great idea  
00:51:09 Catherine Abbott: I was an illustrator when I was in K-12.  
00:51:34 Betty Stallings: I think that my special needs students could comprehend this with a little repetition  
00:51:40 Angela Fugate: lots of students would rather draw  
00:51:58 Amy Rowe: Joe Goller's course? Is it on line? Spelling of his name?  
00:52:06 David Barnes: Jo Boaler  
00:52:10 Denise Flick: Jo Boaler  
00:52:14 Patricia Ferris: Jo Boaler  
00:52:20 Cheryl Ann Doyle E Barran: its Jo boaler  
00:52:21 Tracy Echelle: youcubed  
00:52:22 Catherine Abbott: Two great tastes that taste great together.  
00:52:28 Amy Rowe: Thanks Patricia Ferris~  
00:52:30 Randolph Chapman:  $n(n+2)+n+1$   
00:52:41 Angela Fugate: this is great  
00:52:44 Maria Padiernos: Collaborative Teaching by teachers, what a concept!  
00:52:48 Dave Hankin: many ways to demonstrate mastery...  
00:52:54 Bobby Flores: <https://twitter.com/jobboaler?s=20>  
00:53:05 Tracy Echelle: <https://www.youcubed.org/>  
00:53:28 Eboney McKinney: 🙌🙌🙌🙌🙌  
00:53:29 Catherine Abbott: Maryam Mirzakhani, First Woman to win Fields Medal was an illustrator.  
00:53:56 Jennifer Carroll: what was that site again?  
00:54:11 Jeannie Kim: <http://www.visualpatterns.org/>  
00:54:20 Jennifer Carroll: Thank you!

00:54:29 Sharon Black-MacKinnon: <http://www.visualpatterns.org/>

00:54:32 Cherish Alberts: Thank you for the links!!

00:54:34 Catherine Abbott: Learning to see patterns in multiple ways is HUGE. It also challenges our "jack rabbits" who always finish in seconds.

00:55:17 Catherine Abbott: I once had to find 14 squared without paper in a job interview.

00:55:40 Rachelle Broggin: I feel like I have been ingrained to only see one way of answering a math question.

00:55:50 Trena Wilkerson: Will do Helen! She will see the Chat recording later.

00:56:33 Catherine Abbott: @Rachelle....then you have an adventure in front of you....learning multiple solution paths can be beautiful.

00:57:01 Rachelle Broggin: Beautiful or scary @ Catherine Abbott. Smiles.

00:57:33 Eboney McKinney: 2 go to strategies + 1 back up strategy

00:57:51 Maria Padiernos: YaY...I teach Geometry!!

00:57:52 Eleanor Ennis: great ideas!!

00:58:05 Catherine Abbott: @Rachelle.....some of the best things are beautiful and scary at the same time...example, Grand Canyon.

00:58:06 Trena Wilkerson: I will ask her to share what she is using to create and present at the end. Very cool!

00:58:39 Rachelle Broggin: All right I gotcha @ Christine Abbott, get out of my comfort zone.

00:59:09 Chonda Long: @Trena - I believe she is using this - <https://paper.bywetransfer.com/>

00:59:17 Chonda Long: She is sharing her iPad

00:59:29 Catherine Abbott: I love the proof for the sum of interior angles for any polygons.

00:59:45 Sarah Thomas: Yes, Paper by weTransfer with an iPad Pro and Pencil

01:00:00 Catherine Abbott: 360

01:00:00 Cathy Smith: 360

01:00:01 Dave Hankin: 360

01:00:01 Stephenia Courtney: 360

01:00:05 Cathy Smith: degrees

01:00:05 Ron Sage: 360

01:00:06 Katie Huber: always 360

01:00:07 Caren Rawlins: 360

01:00:08 Brenda McNeese: 360

01:00:18 Brenda McNeese: 360 degrees

01:00:22 Susan Troutman:  $180 + 180 = 360$

01:00:23 Trena Wilkerson: Thanks Sarah and Chonda...it is a combo of things. <https://paper.bywetransfer.com/>

01:00:36 Stephenia Courtney: 2 triangles make up a quadrilateral

01:01:23 Katie Boatright: triangle on top and quadrilateral (2 triangles) on the bottom

01:01:26 Katie Boatright:  $180+360$

01:01:27 Cathy Smith: 1 triangle and 1 quadrilateral

01:01:32 Mohamed T: 1 quadrilateral + 1 triangle

01:01:39 Stephenia Courtney: triangle and quadrilateral

01:02:05 Cathy Smith: increase by 1

01:02:08 Amy Rowe: S - 2

01:02:09 Marianne Mammon: its 2 less than the # of sides

01:02:09 Peta-Gaye Benjamin: Two less

01:02:10 Catherine Abbott: Pentagon 640

01:02:11 Sharon Black-MacKinnon:  $180(n-2)$

01:02:15 Christiana Dellota: two less than the number of the sides

01:02:56 Catherine Abbott: 360 divided by sides = exterior angles.  
180-exterior angles = interior angles. Mulitply interior angles by sides.

01:03:42 Catherine Abbott: Instead of triangles.....look at the exterior angles.

01:04:28 Trena Wilkerson: Remember in CHAT to change from All panelists to all panelists and attendees so you are sharing your comments with everyone. :-)

01:04:58 Kristen Perrine:  $(n-2) \times 180$

01:05:43 Amy Rowe: How do you flip through a book like that on zoom? I'm so impressed!

01:06:08 Nicole Walden: She's got her tech skills ON FLEEK!!

01:06:21 Amy Rowe: What is FLEEK?

01:06:26 Delores Rushing: Elementary teachers do the visual teaching which is so important for students to grasps concepts.

01:06:27 Catherine Abbott:  $20 \times 34 = 6800?$

01:06:28 Rachelle Broggin: @ Nicole Walden too funny.

01:06:28 Chonda Long: She is sharing her iPad.

01:06:41 Eboney McKinney: I Know Right! I need to got to my office and get my ipad!

01:07:18 Eboney McKinney: \*go to my...

01:07:50 Nicole Walden: lol - Amy - sorry - see Urban Dictionary - it's slang

01:07:59 Amy Rowe: I am old :)

01:08:09 Amy Rowe: But I will make up for that by looking in Urban Dictionary!

01:08:20 Rachelle Broggin: Extremely good

01:08:25 Caren Rawlins: Where do you get the illustration of the dots?

01:08:29 Brenda McNeese: I love this presentation tool

01:08:43 Delores Rushing: this was fantastic! These strategies will help the students doing online learning too.

01:08:43 Austin White: This is awesome!!

01:08:46 Amy Rowe: This presentation knocks my socks off. I've never felt so understood as a visual learner.

01:08:58 Peta-Gaye Benjamin: Thank you Jill!

01:09:01 Sara Brannan: Thank you!

01:09:02 Eboney McKinney: So fantastic! One of the best!

01:09:02 Florentia Spires: Yes, please tell us about the presentation tool.

01:09:05 Kristen Perrine: Thank you

01:09:05 Dave Hankin: I am a 6th grade teacher and glad I attended!

01:09:05 Brenda McNeese: Really great I teach 7th grade but this is applicable to higher grades.

01:09:05 Ana Alcaraz: This was amazing! Thank you!

01:09:07 Rachelle Broggin: <http://www.visualpatterns.org/>

01:09:08 Sharon Black-MacKinnon: Thank you so much!  
01:09:08 Keri Naso: thank yo Jill  
01:09:11 Jamie Popov: Thank you so much!!  
01:09:11 WARA SABON DOMINIKUS: a great presentation.  
01:09:12 Maria Padiernos: LOVE, LOVE,LOVE THIS!  
01:09:12 Cherish Alberts: Thank you so much!  
01:09:12 Lorie Huff: Great presentation and wonderful practical ideas!  
01:09:13 Nora Marasigan: Thank you so much!  
01:09:13 Paige Williams: Thanks so much Jill, this has been amazing and mind  
blowing!!  
01:09:14 Skip Fennell: Wow. Nicely done!  
01:09:15 Damali Pittman: This was great!!! Thank you.  
01:09:17 Pujiyanto Pujiyanto: Thanks!  
01:09:18 Arelys Arenas: Thank you for a beautiful and meaningful  
presentation  
01:09:20 Judith Bhatia: cheers  
01:09:20 Angelita Beltran: Thank you!  
01:09:21 Carol Matsumoto: Thanks Jill.  
01:09:24 charu: thank u so much jill  
01:09:25 Teresa Gordon: Thank you, Jill!!  
01:09:25 Rachelle Broggin: Thank you very much Jill!!  
01:09:25 Meghann Piwko: I wish I had learned this way as a child. it makes  
so much more sense.  
01:09:25 Helene Alalouf: Yes Delores, the teachers do, but do they invite  
students to restate, rephrase, and present on their own too?!  
01:09:31 Emerlina Binuya: I love the presentation!  
01:09:34 Nadine Richards-Ramsey: Thank you. Great presentation!  
01:09:35 Eboney McKinney: Perfect!  
01:09:40 WARA SABON DOMINIKUS: thank you.  
01:09:43 Brenda McNeese: @dave hankin me too  
01:09:43 Stephanie Smith: Thank you.  
01:09:45 Jacquelyn Smith: Great presentation!  
01:09:45 Florentia Spires: What a wonderful presentation. Thank you!  
01:09:45 Alicia Kaplan: Great presentation, thank you so much!  
01:09:46 Catherine Abbott: google form  
01:09:49 Caren Rawlins: Really great. Thank you  
01:09:49 Maria Padiernos: tHANK YOU PLEASE!!!  
01:09:51 Ron Sage: Great insight! Thanks.  
01:09:53 Rachelle Broggin: Yes I agree if this was taught to me as a  
child it would have been much easier.  
01:09:54 Mary France Imperial: thank you so much. awesome presentation!  
love it  
01:10:00 Catherine Abbott: form  
01:10:04 Angelica Ciernia: Thank you  
01:10:05 Nancy Cooper: Thank you!!  
01:10:07 Sarah Thomas: #TrinityLearns Multiplication Formative Assessment  
<https://docs.google.com/forms/d/e/1FAIpQLSeA67wKGpGX2duo-RR9B27rd1zcpD20t5bbI7RTvpTtjveQqg/viewform>  
01:10:12 charu: presentation is awesome!  
01:10:13 Sarah Thomas: No problem!

01:10:14 Mary Rose Portugal: Thanks so much, excellent presentation!

01:10:15 MYLA DETECIO: thank you so much. great presentation!

01:10:15 Bobby Flores: This was one of the best (if not the best) illustrated presentations I've seen so far. Awesome job @jgough

01:10:33 Yoga Dwi Windy Kusuma Ningtyas: Great insight ♥

01:10:38 Chris Kelley: Thank you

01:10:55 Susan Troutman: Please share again on the tools you used to show the different dot thinking on your ipad.

01:10:56 Delores Rushing: My teachers do. I as the coach highly recommended many of these strategies in the elementary grades,

01:11:03 Cheryl Ann Doyle E Barran: I truly enjoyed your presentation.

01:11:04 Brenda McNeese: great book to see many methods and strategies. I am a math major and many of these were new to me

01:11:07 Brenda McNeese:  
[https://www.walmart.com/ip/A-Compendium-of-Mathematical-Methods-Paperback-9781912906604/605211165?wmlspartner=wmtlabs&adid=2222222222323279670&wmlspartner=wmtlabs&w10=e&w11=o&w12=c&w13=75110503464997&w14=pla-4578710055031446&w15=&w16=&w17=&%20w110=Walmart&w12=605211165\\_10001025078&w14=math%20compendium&veh=sem](https://www.walmart.com/ip/A-Compendium-of-Mathematical-Methods-Paperback-9781912906604/605211165?wmlspartner=wmtlabs&adid=2222222222323279670&wmlspartner=wmtlabs&w10=e&w11=o&w12=c&w13=75110503464997&w14=pla-4578710055031446&w15=&w16=&w17=&%20w110=Walmart&w12=605211165_10001025078&w14=math%20compendium&veh=sem)

01:11:08 Sarah Thomas: Jill's Tools

01:11:21 Sarah Thomas: Jill is using an iPadPro and Apple Pencil with the app Paper by WeTransfer <https://paper.bywetransfer.com/> Screenshare through Zoom

If using GoogleMeet, AirServer app will help you screen share

<https://www.airserver.com/Connect>

01:11:24 Allison Miller: I use it in 4th grade

01:12:06 Sarah Thomas: Jill's classes for parents blow their minds!

01:12:23 Katie Boatright: where can we find the blog post?

01:13:21 Sarah Thomas: <https://jplgough.blog/>

01:13:24 Delores Rushing: Before the pandemic, doing parent workshops was very instrumental in assisting parents to be able to work with their children

01:13:36 Catherine Abbott: Parents do estimation ALL THE TIME and they sketch their ideas to show math thinking.

01:13:50 Brooke Smith: will this presentation be available to watch again?

01:14:22 Chonda Long: A recording of this session will be available tomorrow at [www.nctm.org/100](http://www.nctm.org/100)

01:14:27 C Daniel-Poleon: yes it will be

01:14:42 Trena Wilkerson: Yes—recording will be available starting tomorrow. Please share! [www.nctm.org/100](http://www.nctm.org/100)

01:14:57 Nicole Rigelman: Children as young as 2nd and 3rd describe general features that are essentially a formula

01:15:21 Chris Kelley: This is a great introduction to Algebra/Geometry at a younger age

01:15:22 Pujiyanto Pujiyanto: I think the recording is available on Facebook page immediately after the live finished

01:15:34 Catherine Abbott: Jo Boaler's camp and number talks found students discovered quadratic equations on their own. (See the Painted Sugar Cube Activity).

01:15:52 Judith Bhatia: Just. Wonderful. Thank you so much!

01:16:10 Angela Fugate: when I used that in 4th grade the parents had no clue what it meant



01:16:20 Delores Rushing: Yes, young children are able to begin to understand the concepts through visualization, building concrete patterns etc.

01:16:41 Sarah Thomas: This post really helps!

01:16:42 Sarah Thomas:  
<https://jplgough.blog/2017/09/09/embolden-your-inner-mathematician-week-1-number-talks/>

01:16:48 Catherine Abbott: Subitizing...to tell the number of objects in a set, quickly without counting.

01:16:56 LA VERNE MITCHELL: Can we enroll in your PD classes?

01:17:30 Nicole Walden: Props to Sarah on keeping up with the chat and the convo!

01:17:57 Dawn Furstenberg: Thank you - you are an awesome teacher Jill :)

01:18:07 Jet Yeung: Thank you for all your information and skills.

01:18:09 Sarah Thomas: Google Keep on the Chromebook

01:18:10 LA VERNE MITCHELL: Thanks1

01:18:24 Jennifer Carroll: This has been wonderful! Thank you!

01:18:25 Delores Rushing: Online teaching can allow teachers to use virtual manipulatives to build patterns

01:18:27 Allison Keever: So appreciate this PD! Great job!

01:18:29 Keri Naso: thanks

01:18:54 Elmer Mayol: Thank you very much.

01:18:56 Nadine Richards-Ramsey: Thank you!

01:19:09 PALANISAMY KATHIR VELOO: Thank you very much

01:19:10 Eboney McKinney: Derived facts

01:19:17 Catherine Abbott: I use to know phone numbers by the visual pattern on phone buttons.

01:19:17 Denise Flick: Some of the best mathematicians never memorized their math facts.

01:19:18 Lorie Huff: Great explanation

01:19:21 Stephanie Smith: I remember having memorization of my home phone number stressed as a child.

01:19:23 Heather Hoepfner: thank you

01:19:40 Susan Bardenhagen:  $7 \times 8 = 56$  5, 6, 7, 8!

01:19:45 Sandi Dlugonski:  $56 = 7 \times 8$  (5,6,7,8 in order)

01:19:58 Denise Flick: Nix the tricks!

01:19:59 Daniel Irving: Thank you for taking the time to share these incredible resources, examples, and ideas with us! What an amazing presentation!

01:20:07 Eboney McKinney: build connections

01:20:10 Eunice Dimasangal: Thank you.

01:20:11 Brenda McNeese: thanks @ Sandi Dlugonski

01:20:17 Sandi Dlugonski: Welcome

01:20:24 Catherine Abbott: The Google Form is currently set to view only.

01:20:38 Jacquelyn Haynes: Did you share a link?

01:20:40 Paige Williams: {{{Mind Blown}}}}!!!!!! Thank you for today Jill!!

01:20:40 Sarah Thomas: I'll make a note to remind Jill about the form tomorrow

01:20:46 Lawanda Mahomes: Great Presentation! Thank you!

01:20:52 Kristen Glessner: Thank you ALL so much!

01:20:58 Delores Rushing: Thanks so much Jill for a great presentation!

01:20:59 Maria Padiernos: Thank you for everything, you rock Jill!

01:21:04 JaDawn Wagstaff: Thank you!

01:21:10 Amy Rowe: textbooks?

01:21:11 Denise Flick: How did Jill get the story in the format she shared?

01:21:14 Catherine Abbott: Thank you. Super presentation!

01:21:16 Brooke Smith: thank you so much

01:21:18 Jacquelyn Haynes: Is a copy of the recording being shared?

01:21:19 Dave Hankin: Thank you again from Globe, AZ!

01:21:19 Jonathan Marcovitz: t

01:21:22 Cindy Bryant: Thank you Jill!

01:21:25 Rose Hutcherson: Thank you

01:21:30 Shinu John: Thank you. Great Presentations

01:21:31 Stephanie Smith: Thank you so much everyone.

01:21:33 Jonathan Marcovitz: Thanks. Great presentation.

01:21:35 Maria Woehl: Thank you!!

01:21:36 Tanya Landry: Thanks so much!

01:21:41 Jeannie Kim: Thanks so much Jill!

01:21:43 Jacquelyn Haynes: Thanks!

01:21:44 Sarah Thomas: Thank you!

01:21:46 Sandi Dlugonski: Thank you!

01:21:49 Desiree Merritt: Thank you - fantastic presentation!

01:21:51 Cathy Smith: thank you

01:21:57 charu: thank you jill. great experience

01:21:57 Brenda McNeese: Thank you. Really nice

01:22:00 Harjeet Kaur Ubbi: Thank you so much

01:22:04 Denise Huddlestun: Thank you for the great presentation!

01:22:07 Lisa Aldous: Thank you!

01:22:10 Pujiyanto Pujiyanto: Thank you, Sarah!

01:22:12 Caren Rawlins: Thank you

01:22:14 Carly Jardinier: Thank you!

01:22:18 Brenda McNeese: I will be there

01:22:23 Kami Soverall: Thank you

01:22:24 Shashidhar Belbase: Thank you very much for such nice presentation with lots of thinking.

01:22:32 Eboney McKinney: Thanks Jill and Sarah!

01:22:32 Betty Stallings: thanks so much. It was great.

01:22:33 Rosanne Marino: Attended a course with these same concepts through DESE in Massachusetts - practiced all of this type of thinking If from MA and can attend it, do so! Thank you for the refresher!!!

01:22:39 Honey Sacro Swem: Thank you for sharing your expertise.

01:22:58 Yvette Davis: Could you provide the link for tomorrow session?

01:23:05 Sandra Puglisi: Thank you very much. Great presentation.

01:23:19 Ruby Maghirang: Where can we access the recording of this great presentation?

01:23:40 WARASABON DOMINIKUS: a lot of thinking involved in the presentation. Thank you for Jill Gough.

01:23:46 Denise Flick:

<https://www.nctm.org/online-learning/Webinars/List?status=recording>

01:23:58 Brooke Smith: do we have to be a member to rewatch this presentation?  
01:24:06 Lisa Lambuth: Thank you Jill! My mind is stretching...I feel it.:)  
01:24:21 Maria Woehl: nope, don't need to be a member to rewatch  
01:24:26 Helene Alalouf: No,Brooke, free access til Oct.  
01:24:30 C Daniel-Poleon: you don't have to be a member  
01:24:58 Delores Rushing: Being a member of NCTM helps with learning many of the various strategies that these wonderful presenters have been sharing with us.  
01:25:03 Cindy Bryant: If you are a member, you can still access them after October.  
01:25:04 Cherish Alberts: Are we able to watch the webinars we missed and still get PD credit?  
01:25:18 Chonda Long: A certificate is available at the end of the recordings.  
01:25:21 Florentia Spires: Amazing session, thank you so very much!  
01:25:47 Brooke Smith: thank you  
01:25:53 Tanya Landry: Thanks again!  
01:25:53 Diane Anderson: thank you  
01:25:54 Rachel Lee: Thank you!  
01:25:56 Cherish Alberts: Thank you, Chonda! I have a membership question. Can I email you?  
01:26:05 Jamie Rossi: You Rock!!  
01:26:08 Melonie Smith: Thank you  
01:26:10 Chonda Long: @Cherish - Yes  
01:26:15 Mary Rose Portugal: Trena did well! )  
01:26:18 Cherish Alberts: 🍷  
01:26:32 Trena Wilkerson: Thanks you Mary Rose!  
01:26:34 Kelley Atwood: Fav one yet!  
01:26:34 Annette Krimmer: thank you so much  
01:26:53 Robin Schwartz: @catherine patterns on the buttons LOL I am from the rotary era it took forever to call anyone!!  
01:26:54 Kristen Glessner: GREAT PRESENTATION!