Chonda Long:

Trena Wilkerson: Hello from Waco, TX!
Nyla Moore-McCreary: Hello from Tacoma, WA
Ana Guerrero: Hello from IL
Lorie Huff: Hello from Fayetteville, Arkansas
roya basu: Hi from NJ
Carol Matsumoto: Hi from Winnipeg.
Kristen Donohoe: Hello from Hebron, MD!
Bobbi: hi everyone from Dallas TX
Sara Haas: Charlottesville, VA!
Marquita Morris: Hello all, from Raleigh, NC
Nely Ara-is: hi from Norfolk, VA
Eric Stauth: Hello from hot Las Vegas
KRISTIN JOHNSTON: Hello from Wichita Falls, TX
Michael Lanstrum: Hello from Cleveland, OH
Jolene Peterson: Hello from Kansas!
Catherine Bronikowski: Hello from Milwaukee, WI
Cindy Luper: Hi from Arkansas
C Robertson: Hello from Nevada
Anne Marie Hohman: Hi from Alexandria, VA!
Lynda Krivansky: hello from Oxford PA!
Gayle Arbaugh: Hi from Puyallup WA
Eboni Baker: Hi from Chesterfield, Va
Edna Rioneeros: Hello from the Philippines
Charleta White-Fletcher: Hello From Rocky Mount NC
Dave Elbourne: Trenton ON
Beth Kobett: Welcome everyone!
Thy Dinh: Hi from San Diego
Jaclyn Murray: Hi from Cumming, Georgia
Olga Kosheleva: Hello from El Paso, TX
Ayunda Sri Wahyuningrum: Hello from Indonesia
Julie Vanderlugt: Hello from London Ontario
Lindsay Campbell: Hello from Dartmouth NS
Lynn Meade: Hi from Richmond, Va.
Stephanie Sikes: Hi from Arkansas
Nicolette Nalu: Hello from a math specialist and AMTEA president in BAMA!
Nellie Alvarez: from Goodyear Az
Jessica Gaull: Hi Everyone!! From Maryland
LeAnna Deveaux-Miller: Good Evening from NEW PROVIDENCE, THE BAHAMAS
Robert Berry: Hi Robert Berry, Charlottesville, VA
Brandon Daniel: Hello from Durham NC
Jorge Veloso: Hi from Angola.
Tim Bobay: Greetings from Raleigh, NC
Jennifer Russell: Hello from Maine!
Diane Anderson: Hi from Massachusetts
Kay Wohlhuter: Hi from Duluth, MN
Maureen O'Connell: Thank you for this message from Ipswich, MA
Kim Neill: Hello from Arlington TX
Melissa: Hello from Fort Payne, Alabama
Jodi Bland: Hello from Cincy Ohio!!
Janice Holland: Janice Holland here from Suffolk, VA
Aisha Gaisi: Hi from Brooklyn
Noreen Shattuck: Hi from NH.
Julie Dill: Hi from Salisbury, Maryland
Kristin Gray: Hi everyone! Kristin here from DE
Melissa McCann: Hello from Franklin, MA
Skip Fennell: Hi, Skip Fennell, Westminster, MD
Kendra Edwards: Hi from Brooklyn, NY
Lisa Moores: Hello from Brig Bay, Newfoundland, Canada
Faith Peddie: Sending positive vibes from Reston, VA. Enjoy tonight's session everyone. Thank you for being here!
Helene Alalouf: Hi from NYC. Hope all are safe and calm and we find a way to heal our broken nation.
Joanmarie Kulinka: from Joanmarie Kulinka in Virginia Beach, VA
bakh: Hello from Wilmington, NC
Jodi Bland: Hi! Jodi B from Milford Ohio
Daniel Irving: Hello from North Providence, RI!
Anne Carline: hello from st. louis, mo
Meridith Jackson: Meridith from upstate, NY
Arnold John Bulanadi: Hello Arnold from Jacksonville, Florida USPH
Rowena West: Hello from Madison, Florida
Julie Secrest: Hello from Burleson Texas
Regina Williams: Hi from Miami, Florida
Veronica Kwok: Hello from Queens NYC
Christopher Kenny: Hello from Washington, DC
John Sasko: Good Evening from Mount Vernon NY - just north of the Bronx.
Sara Klein: Hello friends from Waterloo, IA
Ramona Hall: Hello from Charlotte, NC
Heather Steen: Hello from Texas
Adrienne Shlagbaum: Hi, from Teaneck, NJ
Noe Eugenio: Hi from the Philippines.
Tracy Wood: Hello from Clermont, Florida K-5 Math Program Specialist, Lake County Schools
Traci Emory: Good Evening from Maine
Tani Molina: Hello from Hinesville, GA
Lori McDevitt: Hello from NC
Alison Walker: Hello Alison Walker Darien, Georgia
Joan Albers: Hello from Ohio
Lorie Huff: Thank you Trena and Robert for making this statement.
Terri Davis: Hi from Richmond VA
Leslie Sorace: HI from AZ
Stacy Milas: Hello from New York
Stephenia Courtney: Hello from Las Vegas, NV
Margie Acabal: Hi from Philippines
Erica Wagner: Hi from PA
Janet Jimenez: Greetings from NYC
Sharon Black-MacKinnon: Good evening from New Brunswick Canada
Delores Rushing: Delores Rushing, Washington, DC Hello to everyone.
Mary-Ellen Moore: Hello from Ontario Canada
Juaacklyn Cunningham: Hi from KY
Caroline Marshall: Hi, from Cambridge, Maryland
Dewey Gottlieb: THANK YOU for this message Trena and Robert!
Paaru Kwiatkowski: Hello from Southern California
Nyla Moore-McCreary: Thank you for taking the time to acknowledge the struggle! It requires us to all get involved and to SPEAK UP against hatred and bigotry in order to make impactful lasting change!!!!
Jet Yeung: Hello Everyone-Jet from Henderson, Nevada
Megan Day: Megan from Maryland
Chonda Long:
leticia chapa: Hello from San Antonio, Texas
Jan Back: Hello, Jan Back from Hampton, Tennessee
Valerie Vanderport: Thank you for your powerful words.
Maddy: Hi, from Tulsa,
JANICE OLIVERA: Good evening! Watching from
Lesly Brown: Hello! Excited to learn tonight.
Terri Davis: Thank you for this - my heart has been breaking.
Janice Holland: Absolutely. Thank you. Silence implies consent. If we remain silent in the face of racism, hate, bias, or violence, we are part of the problem.
Lesly Brown: From Tennessee-Glad to be with you.
Mohamed Jamaludeen Thirapusa Mohaideen: Hi, This is Mohamed from CT.
John Sasko: Thank you Mr. Berry!
Carol Matsumoto: Thank you Trena and Robert for your words and support.
Gail Dean: Gail Dean from Minnesota
Stephenia Courtney: Thank you!
Jorge Veloso: Great!
Nicolette Nalu: Thank you NCTM!
Julie Vanderlugt: Thank you for sharing that.
Michelle Webb: Hi, Nashville TN
Mohamed Jamaludeen Thirapusa Mohaideen: Great
Meridith Jackson: Thank you!

Mary Dahn: Thank you!
Candace Smith: Candace from Sanford NC
Nora Marasigan: Thank you NCTM.
Sharon Black-MacKinnon: Thank you!
Roberta Yeager: Hi from P
Maggie Pfuntner: Thank you, Robert!
Lorie Huff: Thank you Trena, Robert, and NCTM for making this statement.
Laurie Barker: Hello from Junction, Texas
Gricelda M.: Thank you NTCM!
Fern Johnson: rural Washington State
Jenna Harkness: Hi from Sasktchewan, Canada!
Khalia Taylor: Hello, from NJ!
Mary Dahn: Mary from Phoenix, AZ
T Greenwood: Thank you NCTM. Tara from Baltimore.
Rochelle Peasley: Hello from Louisa, VA
Erika Hassay: hello from Austin!
Alicia Scott: Hello from San Antonio, Tx
Flora Wright: Salisbury, MD
Natalie Fawthrop Pooler: Halifax NS Canada
Tina Smith: Tina from Lowell, Arkansas
Anne Carline: hello from st. louis, mo
Georgia Molina: Hello from Texas
Katherine McQuain: Thank you, Trena and Robert! From Washington, DC
Caroline Moser: Hello for NC
Callie Herring: Hi from Playas, Ecuador (originally from NC)
Beth Snoap: hello from holland michigan
Victoria Campbell: Hi from Tucson, AZ
Shelbi Cole: Shelbi from Tampa. Thank you, Dr. Berry!
Lori Prantil: Lori Prantil, K-5 math and reading TOSA
Danielle Portocarrero: Melbourne, FL
Nicole Hammell: Hi from Alberta, Canada
Sharon Ling: Hello from NJ!
Christina Lincheck: Hello from Houston, TX
Mari Prior: Hello from Indianapolis
Shannon White: Well put, Trena and Robert. It's unbelievably tragic that we STILL have to make statements such as these.
Clara Modlin: Hello from San Jose CA!
Jennifer Perri: Hi From Rockland County NY
Kelly Massier-Anderson: Hi from Saskatoon, Sk., Canada
Alison Pepero: Hello from Buffalo NY
susan mitzner: Touched my heart thank you from Durham, NC
Jessica Smith: Hello from Miami, Florida
Abdul Razak, Dr: Abdul Razak from Malaysia
Gricelda M.: Thank you NCTM!
Sarah Mertz: Hi from Phoenix, AZ!
Lucinda Smith: Hello from Battle Ground WA
Tamikia Greene: Greetings from Houston, TX
marianne_mammon: Hello from Montauk, NY!
Denise Sears: Denise from Stoneville, NC
Jacqui Vansoest: Hello & Thank you from Woodland, Washington
Staci Erickson: Hello from Seattle.
Roberta Yeager: Hi from the beautiful Pocono Mountains of PA
Shalini Singhal: Hello from victorville, CA
Angela Daniels: Hello from Milwaukee, Wisconsin
Joan Silvestrini: Hola desde Atlanta, GA
Kim Jones: Kim from Lewisville, TX
Danielle Grenader: Hello from Wheeling, IL
Alberta Jarmon: Hi from Nashville TN
Gricelda M.: Hello from Chicago.
Linda Wojton: Hi Linda from Yardley, PA
HILARY OMKAFFE: Hi from Muscat in Oman,
Darlene Rowe: Tucson, AZ
Delise Andrews: Delise from Nebraska
Fran Huntoon: Hello from VT!
Danielle Bentley: Hello from Kansas City. Thank you Mr. Berry and NCTM for your powerful words.
Nicole Young: Hi! From, Haslet TX
Nadia Messadi: Hi from Fayetteville, Arkansas!
Skip Fennell: Thank you Trena, Robert, and NCTM. Empathetic Leadership!
Dawn Peeples: What a powerful group of educators! Wow!
Eliza Reyes: Hello from San Antonio, TX!
Nicolette Nalu: WOO! Day 35!! NCTM Sessions have been wonderful!!
Kenneth Helms: Hello from Arkadelphia, AR Kenneth Helms
Miriam Glock: Hello from Houston, Texas
Leah Watson-Rodgers: A huge thanks to NCTM from Fontana Unified
Rita shammrock: Rita from Senoia, GA
JANICE OLIVERA: Hi! from Saudi Arabia! happy learning!
Sara VanDerWerf: Hello from Sara VDW from Minneapolis - taking a short break to be with my math family.
Sarah Dickie: Hi Sarah from Prince Edward Island
Mary France Imperial: Hello from Manila, Philippines
Dave Hankin: Hello from Globe, Arizona!
Gail Dean: OK
Flora Wright: nervous
Robin Harbour: overwhelmed
Nora Marasigan: challenging
Traci Emory: anxious
Gail Dean: wondering
Robin Harbour: overwhelmed.
Thy Dinh: I'm excited but I kno kids are anxious
Alison Pepero: nervous
Stephanie Barber-Wehrman: overwhelmed
Beth Kobett: Hi @Thy!
Thy Dinh: Hi Beth!
Leah Watson-Rodgers: Teaching it in a conceptual way is so much harder than procedural
Edna Rioveros: fearful and confusing
Nora Marasigan: confusing
Beth Kobett: So fun to see you on the webinar Thy!
Mary France Imperial: hard
John Sasko: Fractions - Fuhgetbaoutit!
Susan Troutman: Wow!
Thy Dinh: NCTM webinars have been awesome
John Sasko: Fractions - not a fourt letter word
Cindy Bryant: Please change your chat setting to All panelists and attendees
Leah Watson-Rodgers: Many teachers and students think it is a 4 letter word.
Catherine Bronikowski: life is messy - not everything happens as integers - once learned fractions MUST show up in ongoing curriculum
Terri Davis: Can we get these slides?
fran V.: number
Alicia Sotello: parts of a whole
Robin Harbour: parts of a whole
Megan Day: a part of the whole
Michelle Webb: parts of a whole
Mohamed Jamaludeen Thirapusa Mohaideen: Not whole
Shalini Singhal: part of whole
Edna Rioveros: parts of a wholw or a set
Amy Garwell: part of a whole
Mary Dahn: part of a whole
Kia Barrieau: Equal sized parts of a whole
HILARY OMOKAFFE: Share of chocolates.
Lori McDevitt: a number that is less than a whole
Ute Moore: A part of a whole
Georgia Molina: part of a whole
Leah Watson-Rodgers: part of a whole or part of a set
Delores Rushing: parts of a whole
Jennifer Russell: part in relation to a whole
Valerie Vanderport: part of a whole
Jodi Bland: Numerator and denominator
Robertta Yeager: part of a whole
Mary France Imperial: its part of a whole
Khaalia Taylor: part of a whole
Nora Marasigan: Fraction is a part of a whole.
Jolene Peterson: part of a whole
T Greenwood: fractions are numbers
Diana Rixom: Part of a whole
Brandon Daniel: a division problem or a ratio
Staci Erickson: a piece or a part of a whole
Roberta Yeager: less than 1
Tani Molina: parts of a whole
Enkelejda Limani: a division
Erika Manges: part of a whole
Joan Albers: part of a whole
fran V.: number
Julie Vanderlugt: part of a whole
JENIEVE DeBonis: part of a whole
Mark Vasicek: A ratio of two numbers
Shalini Singhal: part of a set
Stephenia Courtney: part of something larger
Sarah Chu: part of a whole with equally partitioned size
Rachel Anderson: equal parts of a whole
Traci Emory: part of a whole
Shannon White: A quantity - part of a whole
LARITA MITCHELL: Divided, equal parts of a whole
Ayunda Sri Wahyuningrum: part of a whole
Edna Riveiros: fraction means equality
Mary-Ellen Moore: equal parts of a whole
Danielle Portocarrero: piece of a whole
Branch Pronk: an equal part of a whole
Sharon Black-Mackinnon: Equal parts of a whole
Mary Hamilton: equal parts of a whole
Dewey Gottlieb: a number
bkn: less than one
Lauren Gainsbrook: Relationship between numbers
Cara Littlefield: a ratio comparing part to whole
Sabrina Meyer: equal parts of a whole or group
Dave Hankin: piece of a whole
Judith Harris: A partial number
lynnce: a part or piece of something
Nadia Messadi: a quantity
leticia chapa: Equal parts of a whole
Tina Smith: Cutting a whole into equal parts
Mark Vasicek: Or a comparison of two numbers
Melissa McCann: part of a whole
Angela Hines: visual representation of part to whole
Sherry Maxx: parts of a whole
Jan Bjelopetrovich: equal part of a whole
Ana Guerrero: Part of a whole
Rita shamrock: from Rita part of a whole
Ute Moore: a number that represents a smaller part then a whole
Fran Huntoon: A fraction is a number with several constructs; part whole, quotient, measurement, operator, part part
Enkelejda Limani: division
Stephenia Courtney: equal pieces
Katrina Baskfield: equal parts of a whole
Caitlin Harrigan: A part of a whole
Thy Dinh: fractions are about relationships
John Sasko: A number that describes the relationship between a part and a whole
Robert Yeager: whole and less than 1
Martisha Dunn: part of a whole number
Lisa Lambuth: a number less than 1
Darlene Rowe: A name for a number that has parts to it
Anne Carline: it is a group of a whole
Khalia Taylor: A unit
Christina Lincheck: A whole decomposed into equal parts
Mark Vasicek: Fractions could be more than a whole!
Danielle Grenader: one integer divided by another
Mark Phipps: How much you have compared to an amount
Melissa McCann: a number in-between two whole numbers
Sarah Dickie: ratio
Mary France Imperial: ratio, division
Adrienne Shlagbaum: part of a whole, though it might represent the amount between two wholes
Shalini Singhal: equal parts
Ana Guerrero: a division
Shannon White: QUANTITY/AMOUNT (Part of whole)
Joan Albers: numerator and denominator
Dian Kurniawan: a number with cannot divide by zero number
Janet Jimenez: Equivalent parts of a whole..
Alison Pepero: a part of a whole
Delores Rushing: Delores Rushing Parts of a whole, set
Denise Walston: part of a whole that has been divided into congruent parts
Margie Acabal: ratio
Kevin Liner: Desmos Link: https://student.desmos.com/activitybuilder/student-greeting/5ed554557422c811a0eb9a26
Fran Huntoon: A fraction is multiplicative relationship
Mark Vasicek: A fraction could be a whole number, too!
Kimberly Turner: equal parts
Ayunda Sri Wahyuningrum: part of a whole with multiplicative relationship
Kevin Liner: Desmos Link: https://student.desmos.com/activitybuilder/student-greeting/5ed554557422c811a0eb9a26
Anastasia Alexiou: part of a whole
Kevin Liner: Desmos Link: https://student.desmos.com/activitybuilder/student-greeting/5ed554557422c811a0eb9a26
Catherine Bronikowski: decomposition and composition
Edna Rioveros: 5 wholes
Mary Hamilton: Can you show the graphic again? It doesn't show all of it on desmos
Dave Hankin: How many do I see of what?? Pieces, wholes....
Dave Hankin: I guess that's the idea.
Mohamed Jamaludeen Thirapusa Mohaideen: No option to enter the code. sorry

Nadia Messadi: 5 wholes
Julie Secrest: 5 I see a group of 4 + 1
Michelle Green: I like this
Roberta Yeager: 5
Delores Rushing: 5 wholes divided into various parts
Michelle Webb: 5 Hexagons
Gail Dean: 5
Shannon White: I see 2 and 1/2 (My whole is 2 hexagons together to make 1 whole)
HILARY OMOKAFFE: 5 hexagons
bakn: 30/6
Cindy Bryant: Illustrative Mathematics - IM
Sandra Pech: 5 wholes
Jet Yeung: 10
Tani Molina: 10
Ute Moore: 5 whole= 5 half, 2 whole, 3 thirds
Regina Williams: 14
Khaalia Taylor: 2 + 5/2 + 3/6
Dewey Gottlieb: counting units
Roberta Yeager: matching
Amy Johnson: I have done this with my students and we simply call it “How many?” It is great way for them to start thinking about using units!
Marie Hannon: 5 wholes, wholes and halves, whole, halves, thirds and half, hexagons
Susan Bardenhagen: Are we supposed to be thinking and answering like a first grader? If so, I need to change my answers!
Kia Barrieau: parts and wholes, shapes
Georgia Molina: 5 wholes, 5 half, 3 thirds
Sara Haas: class code please
Robin Schwartz: hexagons are composed of other shapes
Fran Huntoon: Unitizing
Tracey Gillies: It gets at unit thinking.
Roberta Yeager: parts that make a whole
Gail Dean: number of shapes, number of specific colors of shapes, how
Terri Davis: parts of whole
Ute Moore: parts of a whole
Janet Jimenez: 4 whole pieces/ 2 wholes divided into 2 halves/ 1 whole divided as 1/2 and thirds. 1/2 + 1/3+ 1/3 + 1/3
Kia Barrieau: partitioning
mariannemammon: Identifying the whole
Sandra Pech: equivalency
Ramona Hall: equivelancy
Mark Vasicek: halves
Yvonne Arden: parts and whole
HILARY OMOKAFFE: understanding students Vocab in mathematics.
Sandra Ubben: shapes
Bobbi: decomposing objects
Brandon Daniel: decomposing wholes; equivalent fractions
Alicia Sotello: ways to make a whole
Adrienne Shlagbaum: equivalent parts or congruent shapes
susan mitzner: please put in link unable to get in
Kia Barrieau: unitizing
Rowena West: Shapes, parts, and colors
Edna Rioveros: fractions
Stacy Sammons: Defining a whole
Jolene Peterson: begin to think about different ways to represent numbers that are equivalent
Shalini Singhal: distribution of color
Janet Jimenez: Equal parts
Lori McDevitt: which color block is half of the yellow hexagon?
Gail Dean: how many whole objects do you see? How many parts?
Adrienne Shlagbaum: congruent shapes
Meridith Jackson: partitioning
Shannon White: Unitizing is KEY
Beth Snoap: they are not all the same
Amy Johnson: Connections between whole numbers and fractional parts
Tracey Gillies: More than one way to name a quantity.
Nicole Young: some will just name colors that they see
John Sasko: What am I counting? What's the unit?
Anne Carline: talking about different ways to represent one. or different ways to represent halves etc.
Skip Fennell: How parts contribute to a whole
Kelly: fair sharing
Mary Dahn: partitioning, fractions
Sandra Ubben: decomposing and composing shapes
Sharon Black-Mackinnon: partitioning
Megan Day: they could draw their thoughts
Kathryn Villarreal: They would discuss that some pieces are divided and some are not. What does that mean to them?
Nadia Messadi: they might count every part
Branch Pronk: how to name the parts
JENIEVE DeBonis: equivalency
Gayle Arbaugh: part whole relationships, division, relationship between multiplication and division, fractions, relationship between fractions and division
LARITA MITCHELL: How many halves? How many in all?
Darlene Rowe: Makes me think of number talks, explain your answer and it's valid
Nicole Young: geometric vocabulary
Khaalia Taylor: Sorting, partitioning, equivalence
Michelle Green: Shapes, Subitizing, parts and wholes, make up of shapes
Caitlin Harrigan: fractions
Ute Moore: same but different
00:40:09 Leyla Plunkett: A whole is made up of part-decomposing
00:40:10 Mark Vasicek: relation to color.
00:40:10 Regina Williams: parts, whole, equal parts, units
00:40:10 Darlene Bailey: Different sizes of parts
00:40:10 Erika Hassay: equivalence
00:40:11 Shalini Singhal: shapes
00:40:11 Melissa McCann: part-whole relationships
00:40:12 Victoria Campbell: various shapes
00:40:12 Teresa Hammett: Idea that there can be more than one answer.
00:40:12 Ayunda Sri Wahyuningrum: equal part
00:40:13 Dewey Gottlieb: identifying the units you are counting (define the “whole”)
00:40:13 Sarah Mertz: Identifying parts in a whole
00:40:14 Georgia Molina: shapes, colors,
00:40:15 Mark Vasicek: use blocks...
00:40:16 Rachel Anderson: decomposing and composing, naming parts and wholes differently based on equivalent fractions
00:40:16 Alicia Scott: pieces
00:40:17 Paaru Kwiatkowski: shapes, colors, partition,
00:40:18 John Sasko: Are the parts the same size?
00:40:19 Nicole Young: parts and wholes
00:40:19 Georgia Molina: equal parts
00:40:20 Adrienne Shlagbaum: number of sides with different shapes
00:40:20 Traci Emory: fractions
00:40:20 Amy Garwell: how to divide into different fraction amounts and equivalent fractions
00:40:20 Kim Jones: shapes, fractions, parts, wholes, equivalence, composing decomposing
00:40:20 Maureen O'Connell: What is the whole? Wholes can be divided into equal parts
00:40:21 Tina Smith: terminology
00:40:21 Leyla Plunkett: different ways to compose the same whole
00:40:22 Regina Williams: sorting by colors, shapes
00:40:23 Susan Bardenhagen: shapes, colors, knowledge of pattern blocks from a center
00:40:23 Edna Rioveros: parts
00:40:24 Alison Pepero: equal parts
00:40:25 Thy Dinh: composing and decomposing, shapes, colors
00:40:25 Sharon Black-MacKinnon: equal parts of a whole
00:40:25 Denise Walston: looking at the whole; units; describing part of the whole
00:40:26 Mary France Imperial: shapes
00:40:29 Lisa Allen: fractions
00:40:29 Georgia Molina: equivalent
00:40:29 Sarah Chu: equal parts
00:40:31 Cesely Thompson: What can be parts when different shapes are the wholes
00:40:31 Dave Hankin: classifying
00:40:32 Valerie Vanderport: shapes that compose the whole
00:40:33 Jodi Bland: K: Colors, shapes, count how many parts
ANALINE BAUTISTA: decomposing
Sharon Black-MacKinnon: shapes
Karin Leonard: fractions
Danielle Portocarrero: we would definitely see the different ways students think, and be able to talk about equal parts
MARIA THERESA R. ABUNDA: good day from doha qatar
Martisha Dunn: colors and whole shapes
Rita shamrock: look alike are different
Thy Dinh: labels are important
Terri Davis: There's more than one right answer sometimes!
Candice Markel: How shapes are made up of different pieces or shapes
Alessandra Kennedy: multiple representations

Catherine Bronikowski: patterns
Sherry Maxx: equivalents
Marie Hannon: equivalent, fractions, whole, decomposing, composing
Alicia Scott: Equal sized pieces
Julie Vanderlugt: equivalent fractions, improper fractions, whole numbers, parts, shape, colour
Sherry Maxx: patterns
Georgia Molina: decomposing, composing
Delores Rushing: Delores Rushing Showing how you can start with a whole and then show how that whole can be divide into various parts
Julie Vanderlugt: compose and decomposing.
Patti Gawronski: relationships and equivalent shapes
susam mitzner: same shapes different number of pieces
Ute Moore: A
Lisa Allen: a
Cindy Bryant: Please change your chat setting to All panelists and attendees
Georgia Molina: A
Ana Guerrero: c
Mohamed Jamaludeen Thirapusa Mohaideen: a
Robert Yaeger: A
James Hensley: A
Traci Emory: c
Sarah Chu: a
Sherry Maxx: c
Gricelda M.: D, its a cricle
Cara Littlefield: A is not partitioned equally
Sandra Pech: a not equal parts
Megan Day: A because they are uneven.
Branch Pronk: A not equal parts
Pam Cadena: A- not split equally
Terri Davis: A, the pieces are not equal
Tracey Gillies: A because it does not have equal parts.
bakn: A not equal parts
Sarah Chu: not equal parts
Sara Haas: A not equal parts
Alison McDaniell: D because the other ones are squares
Jan Bjelopetrovich: D because it's a circle
Amy Garwell: A- not equal size pieces
Leah Watson-Rodgers: A because it's not divided equally
Ute Moore: not the same parts
Leyla Plunkett: D- it's not a rectangular whole
Joan Albers: A not fractional parts
Valerie Vanderport: D- not a quadrilateral
Nicole Hammell: a-- as the parts are not equal
Nadia Messadi: D a circle
Bobbi: A not portioned equally
LARITA MITCHELL: A
Sandra Ubben: C because the whole is shaded
Melissa: D-It is the only shape that doesn't have straight sides
Roberta Yeager: not equal parts
Staci Erickson: A doesn't have equal parts
Cesely Thompson: A doesn’t belong because they are not equal parts
Stephanie Sikes: A, not equal parts
James Hensley: A does not have equal parts
Denise Sears: A because the parts are not equally partitioned
Alison Pepero: A
Beth Snoap: B only has 2 divisions, not 4
Erika Manges: A not all parts are equivalent
Clara Modlin: B-divided in 2 parts not 4
Erin Meunier: C - all pieces are there
Darlene Bailey: D: because it is the only circle
Stacy Sammons: C because the whole shape is shaded
Georgia Molina: A different sizez
Janet Jimenez: A-it is not divided into equal parts
JENIEVE DeBonis: A because its not a fraction
Carolyn Davis: A does not belong because the parts are not equal
Shalini Singhal: c, because the whole is shaded
Meridith Jackson: A: not split into equal parts
Maureen O'Connell: A doesn’t belong because it does not have equal parts
Regina Williams: A not cut into equal parts
Nicole Bayler: A does not have equal parts
Sara Klein: B not partitioned into 4 pieces
Anne Carline: A because it's the only one not divided into equal shapes
Linda Rodriguez: c - it’s all shaded in
Tracy Wood: A- does not have equal parts
Ana Guerrero: C because the whole figure is shaded
Lisa Allen: A because it is not equal parts
Michelle Webb: d it's not a parallelogram
Sarah Mertz: A doesn’t belong because it does not have equal parts.
Adrienne Shlagbaum: B because it is the only one split into two parts (or not 4 parts)
Mohamed Jamaludeen Thirapusa Mohaideen: No proper fraction in A
Rowena West: D because the outside is not a straight line
Mary Dahn: a because the pieces are not equal
Kia Barrieau: C, one whole
Lisa Lambuth: C because all the pieces are shaded
Sara Lane: A because it doesn't have equal parts.
Denise Walston: A; not equal parts
marianne_mamon: b because it shows 2 parts, not 4
Caitlin Harrigan: A
Lauren Gainsbrook: A because it is the smallest part of its whole.
Sharon Black-MacKinnon: A because the parts are not drawn equally
Jolene Peterson: C because one whole is shaded
Johanna Bautista: a doesn’t have equal parts
Michele Smith: c - it is all shaded in
Brandon Daniel: c. Its a whole
Nicole Young: a doesn't belong because there are not 4 equal parts represented
irma maceachern: all four don't belong together...but all have something in common
Laurie Barker: D - not a quadrilateral
Fran Huntoon: D because it is a circle
ANGELICA DELA VICTORIA: A. because it is not equally divided
Megan Day: B because it is only divided in to two parts instead of 4 parts
Alicia Scott: A - not equal
Sarah Chu: not partitioned evenly
Tani Molina: b , it is not in four parts like the others
Sarah Dickie: D - it is the only one that shows a quarted of a circle
Diana Erchick: A bc it’s the only one that doesn’t have equal parts
Jan Bjeloletrovich: C because all the pieces are gray
Angela Daniels: A All of the parts are not equal
Khaalia Taylor: D because it’s not rectangular
Adrienne Shlagbaum: C all shaded
Deanna Rigdon: d it is round
Marissa Day: B doesn't have quarters
Fern Johnson: D - not a rectangle; C - not a part of a whole
Cindy Luper: C - It represents a whole where the others do not.
Gail Dean: C it has more than one part shaded
Beth Snoap: D is a circle
Alicia Sotello: A doesn't belong because it is not partitioned into equal parts
John Sasko: C - it is only one showing a whole 4/4
Eric Stauth: a. there are four parts but not all of them are the same size
Lisa Pybus: A because it is not divided into equal parts
Georgia Molina: D its a circle
Lisa Rogers: C is the only one completely shaded.
Sherry Maxx: C because it's a whole
Victoria Campbell: A - not equal parts
Martisha Dunn: Circle
Lindsay Campbell: a - not equal parts
Mari Prior: visuaally it's not equal parts but it could be equal parts
Jenna Harkness: a - doesn’t have equal parts
Liz Morris: c more than one part shaded
Alessandra Kennedy: C, it's a whole
Shannon White: C, the whole is shaded
Jennifer Perri: A because it is does not have equal parts.
lync: A because it isn’t divided into equal parts.
Mary France Imperial: C - it's all shaded
Charleta White-Fletcher: A is not equally divided
Paaru Kwiatkowski: C: All parts are shaded
Kendra Edwards: C- all parts shaded
Meridith Jackson: B: split into 2 pieces, other 4
Stephanie Barber-Wehrman: D because it is round
Kathryn Villarreal: A doesn't belong because it isn't partitioned into equal parts
Danielle Portocarrero: D because all the rest are split into square or rectangle shapes
Lynda Krivansky: c because all parts are shaded
Tina Smith: A because not divided equally
Linda Rodriguez: b - only has two parts
Dewey Gottlieb: D because it doesn't have corner
Adrienne Shlagbaum: A only one unequal parts
Nadia Messadi: b 2 parts
Caroline Moser: C has 4 parts shaded in
Tamara Dixon: We call this routine "Eliminate It" in our class!
Lori McDevitt: A doesn't belong, it’s the only one that is not divided into equal parts
Mary Jo Dunne: a. not equal
Sharon Stoeckel: not decided into equal parts
Lauren Gainsbrook: C - it is the only whole
Maureen O'Connell: B because it is the only shape divided into halves
Gayle Arbaugh: C because it is one whole or 4/4.
Sarah Dickie: C all is shaded
Teresa Hammett: D is a circle
Nora Marasigan: D
Helene Alalouf: A because not equal partitions; B only one showing halves; C only one having the whole shaded; D 1/4 shaded
KRISTIN JOHNSTON: A because the parts are not even parts
susan mitzner: a not equal parts
Sharon Black-MacKinnon: D because it is a circle
Terri Davis: B, it doesn't have 4 pieces
Yvonne Arden: A the shaded part is not the same size
Cindy Luper: D - It is a circle
Linda Rodriguez: a - unequal parts
Megan Day: D because it is a circle
Tina Smith: B because only 2 parts
Kim Neill: A is not cut into equal pieces or D because it's a circle
Sandra Ubben: D - whole is a circular region
Lisa Lambuth: B b/c it's only cut into two
Michelle Green: D it is the only round shape
Gricelda M.: C, all parts are shaded
Kelly: C doesn't belong because all pieces are shaded.
Patti Gawronski: A parts aren't equivalent
leticia chapa: D because it doesn't have 4 sides
Linda Rodriguez: d circle
Sara Haas: C all shaded rather than a part
Ute Moore: A - not equal parts, D-wrong shape,
Jet Yeung: c
Mark Vasicek: Each doesn't belong for a different reason. C - all quadrants are filled in. D is a circle, not rectangle. B is in 2 parts only. A is divided into different sized parts.
Stephanie Barber-Wehrman: c because the others are 1/4
Tina Smith: C because all parts shaded
Robin Harbour: Each doesn't belong for a different reason: A doesn't because it's unequal parts, B doesn't because it's broken into 2 parts, C doesn't belong because it's all shaded. D doesn't belong because it's a circle
Beth Snoap: C has everything shaded
Terri Davis: C, all the parts are shaded
Judy Gerwe: A because not all equal parts
Thy Dinh: the circle doesn't belong since it's not a polygon
Delores Rushing: A it is not divided into equal parts
Edna Rioneeros: D bec its a circle ...its part is not equal with the other choices
Margie Acabal: A
Darlene Rowe: A, not all parts; but could be B, only 2 parts; but could be C shows wanting all parts
Daniel Irving: D (is a circle); C (the entire shape is shaded); B (only two regions); A (not divided into equal regions/pieces)
Kristin DeLorenzo: A. They are not equal parts
Paaru Kwaitkowski: A: not equal parts
Dave Hankin: It depends on what we're looking for, but most of us would say D as it is circular while the others are 4 sides.
Maureen O'Connell: D because it is the only circle being divided
ANALINE BAUTISTA: D because it's a different 4ths
Terri Davis: D, the shape is the only circle
Anne Carline: C because it's the only one that is shaded into a whole
Ayunda Sri Wahyuningrum: A because their parts are not equal to the whole
Shalini Singhal: a, unequal parts
Tina Smith: D because it is a circle
Julie Secrest: A because it’s not divided into equal parts
Julie Vanderlugt: a because the parts aren't equal in size. B
because it has only two parts. C because all of them are shaded. D because it is a circle shape not a square or rectangle.

Danielle Portocarrero: or A because it's not divided up into equal parts

Mari Prior: c... it's a whole shaded where the others are part shaded

Noe Eugenio: B - not divided by 4

Meaghan McIntyre: d the only one without colored on left side

Diane Anderson: D

Regina Williams: D is a circle

Stephanie Barber-Wehrman: a. not equal parts

Joanmarie Kulinka: Joanmarie Kulinka a not divided into equal parts

HILARY OMOKAFFE: C- whole shape is shaded.

Maureen O'Connell: Such a great invitation for students

Khaalia Taylor: equal parts

Diana Erchick: or C bc the whole is colored in and in each of the others only a part is colored in.

Sara Haas: D not a polygon

Paaru Kwiatkowski: B - only 2 parts unlike the others 4 parts

Nadia Messadi: c all shades

Sharon Black-MacKinnon: C because it is 4 small squares within the whole

Susan Bardenhagen: a because it's not divided evenly/fairly/each

Dave Hankin: We could say B if looking at total number of pieces.

Margie Acabal: A - divisions are not equal

Judy Gerwe: Hi is this working

Ute Moore: C- shows a whole

Megan Day: equal parts

Regina Williams: B has 2 parts whereas the others has 4 parts

Paaru Kwiatkowski: D not a quadrilateral

Tina Smith: Equal parts

Nicole Young: equal parts

John Sasko: FAIR shares

Lori McDevitt: equal parts

Kendra Edwards: fair sharing

Robin Schwartz: division

bkn: fractions are equal parts of a whole

Brandon Daniel: sharing

Julie Vanderlugt: equal parts

Shalini Singhal: shapes

Mary Dahn: fractional parts are equal groups

Robertta Yeager: equal parts

Bobbi: fractions are equal parts of a whole

Caitlin Harrigan: Shapes, equal parts, symmetry

Nora Marasigan: Equal

Khaalia Taylor: how to classify shapes

Sandra Ubben: equal-sized parts

Mark Vasicek: This builds on shape- rectangle vs. squared.
Coloring / shading.

Danielle Portocarrero: shapes, size,
Traci Emory: equal parts
Sharon Black-MacKinnon: sharing equally
Jan Bjelopetrovich: equal parts
Johanna Bautista: identifying equal parts
Branch Pronk: equal parts of a whole
Mary France Imperial: or maybe D its not a quadrilateral
Maureen O'Connell: fractions have to be equal parts of the whole
Shalini Singhal: equal parts
Tracey Gillies: Equal parts
Terri Davis: fair share
Tina Smith: Halves, fourths
Nicole Bayler: Conceptions about fractions
Eric Stauth: equal shares
Sherry Maxx: fractions
Alicia Scott: Equal sized parts
marianne_mamon: equal parts, halves and fourths
Rita shamarock: different shapes
Gail Dean: they would know part versus whole, counting
Lorie Huff: identifying shaded parts
susan mitzner: fraction is equal parts
Sara Klein: Sharing
Sara Lane: Equal parts
Lori McDevitt: dividing a shape into equal parts
Anne Carline: building on knowledge of equal parts
Pam Cadena: drawing their models
Danielle Portocarrero: equivalence
Khaalia Taylor: parts vs. wholes
Charlene Martin: shading
Valerie Vanderport: knowledge of polygons
Terri Davis: shape names
Georgia Molina: equal sides
KRISTIN JOHNSTON: Fractions must be equal parts
Laurie Barker: shapes, counting to 4
Michelle Webb: shapes, equal parts
Yvonne Arden: the relationship between a part and the whole
Lori Prantil: D it is a circle
James Hensley: shapes and size
Mary Jo Dunne: equal parts, partitioning
Nadia Messadi: classify
Martisha Dunn: shaded figures
Mark Vasicek: It builds on dividing shapes into parts.
Georgia Molina: shading
Michelle Green: equivalcences
Robin Schwartz: classifying shapes
Rowena West: part to a whole
Ana Guerrero: a whole number vs. fractions
Khaalia Taylor: equal parts
Shalini Singhal: unequal parts
Brandon Daniel: part to whole
Sharon Black-MacKinnon: different shapes
Lisa Pybus: Fractions need to be represented in equal parts
Renee Catalano: fractions work independent of shape
Megan Day: it could build on equal parts, dividing or equal sharing
Jodi Bland: same parts
Thy Dinh: equal parts, sharing
Regina Williams: equal parts,
Georgia Molina: sharing
Judy Gerwe: From: Judy Gerwe
Alicia Scott: describing things in parts
Fran Huntoon: equipartitioning
Erika Manges: Partitioning shapes
Noe Eugenio: student reasoning
Sherry Maxx: different parts of a whole
Shannon White: Fractions can be shaded or Unshaded parts of the whole.
Branch Pronk: naming the whole and the parts
Amy Garwell: equal size for fractional pieces
irma maceachern: my five year old say C because all are covered
Erin Meunier: parts of a whole
Dave Hankin: parts of a greater whole
Kia Barrieau: equal parts, wholes, fair sharing, partirioning
Colleen Feller: equal parts
Carolyn Davis: Fractions must have equal parts of the whole
Megan Day: parts in a whole
Darlene Bailey: Equal parts.
Sandra Ubben: the size of the whole
Alison Pepero: parts of a whole
Regina Williams: discrimination
HILARY OMOKAFFE: Understanding the vocab...differentiation.
Gail Dean: shapes and if shaded shapes are same shape as whole of each
Teresa Hammett: Equal parts vs non equal parts
Yvonne Arden: similarities and differences
Linda Wojton: equal parts
Dawn James: “equivalent” – vocabulary
Sara Klein: Yeah...B looks like two tiles
Kim Neill: equal parts, 2D shape names/properties
HILARY OMOKAFFE: Sequence and pattern.
Sherry Maxx: student reasoning, patterns, parts of a whole
Fran Huntoon: That you can put shapes to gather to from new shapes equivalent.
Gayle Arbaugh: equivalence, what is a way to make "a" and "b" equivalent.
Dian Kurniawan: 1/8, 1/2. 4/4, 1/4
Georgia Molina: pattern
Darlene Bailey: in A they can add squares to see how many equal
squares they can see.
00:44:35 Georgia Molina: equal parts
00:44:40 Robin Schwartz: Grade 1 very advanced language for some s's
00:44:55 Erin Meunier: I agree about the grade 1 lang
00:45:07 Fran Huntoon: Second grade has to see that fractional parts do not
have to be the same shape to have the same value
00:45:17 Renee Catalano: You have 1/3 and examples that are not evenly
divided in 2nd.
00:45:30 Robin Schwartz: is expressing the fractioning 2 ways helpful?
halves and 1/2s
00:45:47 Sherry Maxx: 1/2, 1/4, 4/4, different shades of shapes and parts
of whole
00:45:51 Robin Schwartz: also students often think about one fourth in 2020
rather than one quarter
00:46:12 Clara Modlin: Expressing fractions in part/whole form is
introduced in 3rd grade, building on 2nd grade knowledge
00:46:41 Fran Huntoon: Fair sharing also contributes to fraction
understanding
00:46:53 Thy Dinh: fractions in lower grades is based on visual models
only, so concepts of fractions are fundamental
00:47:44 Fran Huntoon: It requires students to do some mental moving of
pieces
00:47:46 Robin Schwartz: do s's have manipulatives with this? very cool hexs
00:47:56 HILARY OMOKAFFE: 3 copies of diamond
00:48:22 Jolene Peterson: WOW! I love this!
00:48:26 Sarah Chu: mental movements and number of pieces
00:48:28 HILARY OMOKAFFE: 3 copies of trapezium.
00:48:32 PATRICK GUERRA: Good morning love it
00:48:32 Christine Percy: the foundation to the GR4 standard for mult
fractions
00:48:32 Fran Huntoon: I love number of piece and size of piece as fraction
language
00:48:33 John Sasko: Iteration - great activity!
00:48:49 Fern Johnson: I teach this in 6th grade and they have
manipulatives so I can’t imagine the lower grades wouldn’t.
00:49:03 Caroline Moser: Why are you using the word copy? That doesn't seem
like the best vocab word for that activity
00:49:38 Julie Vanderlugt: can you put the pict8ure back up?
00:49:47 Fern Johnson: I can’t see the picture
00:50:13 Melissa: Yes-the pictures are gone before I can gather my
answer
00:50:14 Sara Haas: picture please
00:50:17 Nadia Messadi: can't see the pictures
00:50:22 Sherry Maxx: Can't see picture
00:50:43 Jessica Yancey: Kids need estimates to build number sense.
00:50:49 Tina Smith: Can’t see the picture
00:50:55 Clara Modlin: Image please!
Clara Modlin: Thanks!
Alayna Wearly: thank you
Eric Stauth: iteration
Terri Davis: I like that I can edit my answer!
Danielle Bentley: Shaded!!! Missed that word! LOL!
Gail Dean: 5/6
Maureen O'Connell: love Slido for participation
Mark Vasicek: yes, I did!
Brandon Daniel: using benchmarks
Michelle Green: Iteration
Sharon Black-MacKinnon: benchmarks
Fran Huntoon: Nice link to composition and decomposition of shapes
Georgia Molina: benchmarks
Terri Davis: Cuisenaire rods work well for that too!
Fran Huntoon: The tape diagram and number line connection really helps students “see” the fractions on the number line
Lori McDevitt: layering the tape diagram over the number line really helps students
Kia Barrieau: Helps to see difference between discrete and continuous
Sarah Chu: yes. overlapping them would build on
Thy Dinh: helps kids see relationships between the models
Fran Huntoon: iterating and partitioning are key
Stephenia Courtney: concrete to abstract
Nadia Messadi: not yet
Adrienne Shlagbaum: thinking about copies of repeated parts
Kia Barrieau: Fractions are numbers!
Colleen Feller: using the term "Copies"
Georgia Molina: concrete to abstract
Charleta White-Fletcher: intervals
HILARY OMOKAFFE: Going from concrete to abstract/. Brandon Daniel: spatial relationships
Valerie Vanderport: less than 1 whole
Ute Moore: one copy of multiple pieces of a whole.
Shannon White: Quantity/Amount
Shalini Singhal: repeating a pattern in a whole
Sandhya Raman: Progression to become whole numbers
Amy Garwell: equal copies of a fractional piece
Alicia Scott: I added equal parts to my definition
Thy Dinh: fractions are relationships
Diane Anderson: Fractions are numbers
Nadia Messadi: the word copies
Anne Carline: fractions can be represented in many different ways from concrete, pictures to number lines.
Khaalia Taylor: intervals between 0 and 1
Mary-Ellen Moore: developing spatial understanding
Jessica Yancey: ordered pair of numbers representing the ratio of parts to whole.
Danielle Portocarrero: a number between zero and 1
Susan Bardenhagen: adding "equal" to parts of a whole
Kia Barrieau: Fractions can be more than one whole
Mary Dahn: part/total
Sarah Chu: fractions are relationships with other contents
Gricelda M.: yes, patterns
John Sasko: A number that is made up of its parts!
Traci Emory: comparisions
Sarah Chu: patterns
Cristy Holtzclaw: add the word equal for equal parts
Darlene Bailey: equal parts
Eddie Pecina: concrete to abstract; spatial awareness
Angela Cooper: parts of a whole
Mary Jo Dunne: concrete --> abstract
HILARY OMOKAFFE: Utilizing visual activity while introducing fraction.
Edna Rioveros: fractions can be represented on a number line
Gayle Arbaugh: pieces less than one that are equal in size can create a or more wholes. part part whole
Marie Hannon: concrete to abstract, numbers, relations
Stephenia Courtney: less than 1 and comparisons
Meridith Jackson: the importance of recognizing fractions as both intervals and points on a number line
Georgia Molina: part of whole, equal sides
Mary-Ellen Moore: magnitude
Mohamed Jamaludeen Thirapusa Mohaideen: 8/3 is more than 2 whole and 2/3
Margie Acabal: relationship between parts and a whole
Shannon White: Danielle, fractions can also be more than 1 (ie. improper fractions/mixed numbers)
Alison Pepero: comparison and less than 1
Joan Albers: repeated same size parts
Anne Carline: that fractions of 1/2 can be different sizes depending on the whole
Danielle Portocarrero: equal parts of a whole
Sherry Maxx: fractions parts to whole numbers and beyond from abstract drawings to concrete objects
Carolyn Davis: equal parts in relation to the whole
irma maceachern: sets
Brandon Daniel: yes, magnitude
Kim Neill: an amount of space that is greater than zero but less than a whole--area or length
susan mitzner: equal parts how many to get to a whole
Ana Guerrero: located between 0 and 1 on the number line
Martisha Dunn: comparing using different models to represent fraction
Nicole Bayler: Fractions are part of a whole / set.
Dustin Lockwood: different ways of partitioning values or shapes
Dawn James: Yes! “Reading a Ruler” can now be meaningful to students!
Jessica Yancey: All rational numbers are fractions. It does not have
to be between 0 and 1!

00:58:47 Georgia Molina: numerator denominators
00:58:54 Fran Huntoon: No out of language - just say the number!
00:58:56 Adrienne Shlagbaum: Excellent point!
00:59:07 Darlene Bailey: Awesome when you think about the words that are used. 5 pieces size of one fourth!! 5/4
00:59:16 Danielle Bentley: Great thinking! Thank you for sharing!
00:59:28 Colleen Feller: using distance!!
00:59:32 Renee Catalano: I like __ pieces the size of __/__.
00:59:32 Nadia Messadi: I use these terms with my students
00:59:32 Jessica Yancey: I have 5 out of four; I have more than one whole.
00:59:34 Melissa McCann: importance of precise language
00:59:34 Fran Huntoon: Numerators are adjectives and denominators are nouns
00:59:36 Kia Barrieau: Importance of multiple representations
00:59:36 Sandhya Raman: I love the language here for fractions greater than one
00:59:41 Linda Rodriguez: adjective/noun
00:59:41 Lisa Rogers: multiple representations
00:59:44 Cara Littlefield: I love how it all connects instead of using a bunch of different random representations.
00:59:44 Caitlin Harrigan: student learning lens - feels a little less risky
00:59:45 Jessica Yancey: We write what we see
00:59:45 Monique Harrell-Watford: Yes! It blows students’ minds once you go over a whole. I believe it is great to use certain language school wife.
00:59:46 Liz Morris: as a teacher loving the language of five pieces the size of one fourth
00:59:47 Dave Elbourne: resonating with x number of 1/ys
00:59:47 Paaru Kwiatkowski: For both permission for flexibility in thinking
00:59:48 Tracey Gillies: The progression itself and how I can use this understanding to close gaps
00:59:48 Julie Vanderlugt: fractions can be used in all strands of math in a liner or geometric way.
00:59:49 Maureen O’Connell: If students see fractions as a number that can be placed on the number line, they won’t be so scary.
00:59:50 Monique Harrell-Watford: wide**
00:59:53 Sarah Dickie: Student lens: language is important to give greater access to meaning
00:59:53 Jessica Alvear-Moreno: I like how each grade level builds on the previous one
00:59:53 Mark Vasicek: Wow. I love how you say "pieces"... "the size of"
00:59:54 Sarah Chu: its important to show a variety of different ways and representations
00:59:55 Traci Emory: multiple ways of learning a concept
00:59:55 Gail Dean: number line for students
00:59:55 Sandra Ubben: Nice way to use definition to clarify - fractions may be greater than one.
00:59:55 Bobbi: different ways of showing fractions
Ana Guerrero: How to interpret fractions more precisely
Adrienne Shlagbaum: layering the various representations to develop understanding
Rachel Anderson: Making sure to show the visual representation with the number line so that it is easier for students to understand
Diane Anderson: Write what we see
Tina Smith: As a second grade teacher, the use of words without number representation resonates with me
Yvonne Arden: this has not addressed parts of a set
Terri Davis: I like redefining "fractions on a number line" to "fractions related to distance".
Sarah Mertz: As a teacher I’m really resonating with the importance of leveraging routines at the start of each lesson so that students are able to apply these skills to the mathematical task for the day.
Anne Carline: as a student don't rush the progression of steps.
be firm on modeling first, before moving into abstract
Angela Cooper: Many ways to use fraction language to describe what we see visually.
Denise Sears: students need to move through the progression but sometimes teachers too quickly expect the abstract
Marissa Day: the connections between representations of fractions
Gricelda M.: Connections to geometry and their progression
Lori McDevitt: teacher - concrete to pictures
Mary Dahn: Importance of multiple ways of thinking about fractions
Michelle Green: Stress is 5 1/4 pieces or 2 1/3 pieces instead of the "out of"
Patti Gawronski: building understanding
Mary Jo Dunne: the importance of language used in the vocabulary
Shalini Singhal: progression from bars, to nl to abstract representation
Candice Markel: Helps me to understand why a child may struggle with fractions, where they have gaps in prior knowledge.
Sarah Morris: Thinking of it as 3 pieces the size of 1/4 vs. 3 out of 4 pieces
Jolene Peterson: fantastic building blocks for future math work!
Fran Huntoon: the importance of unit fractions in helping students build understanding
Sara Klein: As a teacher....often on us to make sure that we do not isolate these understandings to the one unit on fractions...building on what they already know.
Sherry Maxx: using multiple ways to demonstrate fractions
Alicia Scott: I like the focus on the unit fraction in the description of a fraction.
Darlene Bailey: As a teacher, the words are important to understanding 5/4 is 5 of the one fourth equal parts.
Lynda Krivansky: helping students move from concrete to abstract through activities
Jessica Yancey: Building conceptual knowledge is primary
Eddie Pecina: The progression of a concept

bakn: Never thought about an improper fraction as so many pieces the size of the denominator.

Branch Pronk: I definitely want to use the language __pieces the size of ___

susan mitzner: pieces are all equal

Jessica Alvear-Moreno: the progression understanding (and build)

Brandon Daniel: representations that build upon fraction understanding (and build)

Sharon Black-MacKinnon: as a student.....a deeper understanding of a fraction

James Hensley: Student: I can represent fractions in a variety of ways

Ute Moore: student lense: there is difficult vocab involved with fractions

Rowena West: Distance

Sandhya Raman: Visual representation of fractions help connect learning

Ann Neely: This helps me see the progression and the importance of language.

Caroline Moser: getting rid of the phrase "out of" and saying 4 pieces the size of 1/5! This is such a great way to help students remember that the D shows the size of the parts

Dawn James: Teacher Lens: layer upon layer (of building understanding) is so important

Kathryn Villarreal: I love how this language connects so well to the use of a numberline

Amy Garwell: the language we use has to be consistent- teacher, as a student how much I just learned formulas for fractions and not what they really represent

Thy Dinh: giving kids practice with all of these different models is so critical

Ana Guerrero: 5 pieces the size of 1/4 rather than 5 out of 4

Kim Jones: the importance of using models without labels to help build conceptual understandings of parts and wholes.

Kim Neill: as a teacher--that teaching fractions has a deep conceptual knowledge piece. It's not just how many are shaded? How many are there? As a student--that it connects to what I already know about shapes and measurement.

HILARY OMOKAFFE: Understanding is better off than covering the curriculum.

Clara Modlin: Critical to develop an understanding of fractions as numbers on a number line relative and equal to integers

Yvonne Arden: the whole can refer to a group of items

Alison McDaniel: geometric shapes

Marie Hannon: 5 out of 4-I have more than one. visualization

Alison Pepero: having pictures and conceptual knowledge

John Sasaki: As a teacher - resonating - consistency and the progression of representations - limited use of notation, building understanding through connections. Very deliberate way of facilitating learning.

Paaru Kwiatkowski: Progression from concrete to abstract
Joan Albers: As a teacher seeing the number of pieces the same size, especially with greater than one fractions

Liz Walton: the progression

Tina Smith: As a student, these are very coherent lessons between grade levels

Gayle Arbaugh: my students struggle with a/1. I think formally introducing rational numbers representing them as fractions would help students to see this

Gricelda M.: taking the language of "out of"

Lisa Allen: As a teacher I am thinking of how students can understand the 5/4 is 5 pieces of 1/4 size. I will be using this.

Maureen O'Connell: such a great progression of understanding and representation; from geometric to numeric. So cool

Darlene Bailey: As a student I can have parts that are greater than one whole

Ann Neely: The move from concrete to abstract

leticia chapa: The importance of teaching fractions by connecting to prior understanding; using manipulatives to abstract

Nora Marasigan: It can be represented in several ways.

Anne Carline: as a teacher that terminology is important.

Lisa Pybus: 5 pieces the size of 1/4

Jodi Bland: the connection between parts and whole

Roberta Yeager: progressions

Sharon Black-MacKinnon: as a teacher building the progression of fractions

Jessica Yancey: All math is connected. In 12 grade we are still using kindergarten math.

Gail Dean: trying to go backward from higher levels of math to break down tasks for lower grades

Susan Bardenhagen: as a teacher- you can have more than a whole's worth of pieces AND if presented correctly, students can handle this!

Mary-Ellen Moore: As a Ss ...how important it is to visualize and represent fractional parts with the concrete first so that they have a deeper understanding as they move to the abstract

Branch Pronk: I love the new ways I am seeing the representations and how they can progress

Lori Prantil: As a teacher how important it is to play in k/1 with blocks and manipulatives.

Denise Walston: the language is good - seeing the progression across grades

Thy Dinh: idea of unit fractions is fundamental

Adrienne Shlagbaum: build comfort with fractions through familiar concepts, such as geometry

Martisha Dunn: I'm excited about the progression of fractions through the grade levels from a teachers lens

irma maceachern: Fraction - Measurement, part-whole, division, operator, ration

Catherine Abbott: I teach 6th grade and begin to teach negative numbers My students' misconceptions about plotting fractions on number lines dramatically affects their ability to plot negative numbers. I love the
fraction bar and number lines model.
01:00:52 marianne_mammon: student lens: understanding fractions name
the size of the pieces and making copies
01:00:52 Lesly Brown: From a teacher's perspective, I am resonating with
how the student would begin to understand parts or units of a whole.
01:00:54 Danielle Portocarrero: as a teacher I am resonating with the part
of and pieces the size of terminology...because I saw my fourth graders get really
confused when the fractions were greater than 1
01:00:55 Dave Elbourne: loose out of phrase
01:00:56 Camille Greene: as a teacher, fraction progression has a continuum
from for students to understand the conceptual understanding
01:01:00 Victoria Campbell: isn't it funny that students can work with
rulers in grades 1 and 2, have no trouble with fractional parts until grade 3 when
it becomes "FRACTIONS"
01:01:06 Judy Gerwe: From Judy Gerwe visual helps students see how to
represent #
01:01:07 Ute Moore: Teacher lens: importance of vocab between grade
levels
01:01:10 Janet Jimenez: As a teacher it can be quite challenging when
teaching fractions. Building conceptual understanding with visuals and real world
objects is important.
01:01:26 Dustin Lockwood: Students need to see fractions represented
in many ways, and get times to ponder them, think about them, and try to manipulate
them and make conjectures about them
01:01:38 Dian Kurniawan: the same amount
01:01:39 Catherine Abbott: I notice a pyramid in the drawing
01:01:40 Gail Dean: visual pattern of building
01:01:40 Jamie Rossi: Love that it looks like a pyramid
01:01:41 Shalini Singhal: fraction strips
01:01:41 Lori Prantil: notice- 1 whole the biggest
01:01:42 Bobbi: I notice patterns
01:01:42 Sharon Black-MacKinnon: I notice the pieces are getting smaller
01:01:43 Cristy Holtzclaw: I see a pyramid
01:01:44 Colleen Feller: the pieces get smaller as you do down
01:01:46 Caitlin Harrigan: It looks like a pyramid
01:01:47 Sara Klein: There is symmetry
01:01:48 Alicia Sotello: I notice that the parts are getting smaller
01:01:49 Stephenia Courtney: All the parts make a whole
01:01:50 Fran Huntoon: The pieces get smaller as you move down the diagram
01:01:50 Brandon Daniel: whole decomposed; what are the units?
01:01:50 Shalini Singhal: pyramid
01:01:51 Sandhya Raman: I notice bricks...and I wonder why 1 is on top layer
of bricks
01:01:51 Thy Dinh: many ways to describe one whole
01:01:51 Georgia Molina: pyramid
01:01:51 Gricelda M.: I notice a pyramid
01:01:51 Mark Vasicek: There is a middle line in some of the strips, but
not in others.
01:01:52 Mohamed Jamaludeen Thirapusa Mohaideen: To see equal fraction
01:01:52 Eddie Pecina: The fraction book
Jessica Alvear-Moreno: all of the strips are equal
Jessica Yancey: 7 wholes
Cara Littlefield: I notice that some of the lines line up.
Ute Moore: Looks like a wall with a 1 in the top
Mary Dahn: It is sectioned off relative to the whole
James Hensley: All rows are the same length
Laurie Barker: - a pyramid!
Paaru Kwiatkowski: More pieces in a row toward the bottom
Adrienne Shlagbaum: More pieces, the smaller the size of the pieces
Tina Smith: Notice the pieces increase by one with each line
Jamie Rossi: Wonder why I never looked at it in black and white
Renee Catalano: As you go down the page the number of pieces it takes to make a whole increase
Lori Prantil: wonder- smaller squares below the 1 whole
Khaalia Taylor: There are more pieces in each row as the size of the pieces decrease
Caitlin Harrigan: I wonder how it works
Alison Pepero: I notice a pyramid, I wonder why it is broken up the way it is
Kim Neill: each bar is cut into different size pieces but the bars are all the same length
Maureen O'Connell: Each is equal parts of the same one whole
Sandra Ubben: 2/2, 3/3, 4/4, 5/5 etc are equivalent
Joan Albers: more and smaller parts as goes down
Rowena West: That one whole can be many different parts
Ana Guerrero: Equivalent parts
Gail Dean: wonder what students would think about this at various grade levels
Dawn James: Notice: the 1 is in the center
Amy Garwell: equivalency of pieces
Michelle Green: I wonder why the top bar is the only one labeled
Janet Jimenez: As you move downward, the sizes are decreasing
Anne Carline: progression from bigger pieces to smaller pieces
Teresa Hammert: pyramid
Lori McDevitt: the more parts, the smaller each part is
Sara Haas: Do you ever put a different number for the top bar?
Tracey Gillies: The pieces are getting smaller, but the whole is the same.
John Sasko: The number of parts is growing as you go down. How far could this go?!
Diane Anderson: Look like a brick wall
Roberta Yeager: I whole and under this the equal parts that make a whole
Caroline Moser: i notice parts are getting smaller
Karin Leonard: Fraction strips
Colleen Feller: why isn't the "half" line going all the way down?
Sherry Maxx: Whole number part to 7 multiple parts
Tamara Dixon: Each row has equally partitioned parts
ANALINE BAUTISTA: I notice that each part is divided into
**Notice, each row has same sized pieces**

**All parts to one. what are the parts**

**some vertical lines align with one another**

**The strips are broken down into parts.(fraction), so I wonder where do we shade?**

**why no 1/7?**

**Starts with a whole strip, then ends with smaller pieces**

**from whole to parts**

**equivalence**

**I wonder how students think of this? like stairs?**

**I notice that no matter how many pieces its broken into the whole is the same**

**I wonder why the last two strips both have a middle line - the rest alternate.**

**lots of equal parts**

**each line is equivalent to all others**

**that they are not having to be equal on the row below**

**wonder if kids see patterns in brick buildings..**

**I notice that it looks like fraction bars, and I wonder how they relate to learning fractions.**

**Each row is one; each row has equal parts**

**Various sized pieces**

**I wonder if some of the pieces are equal to some of the others**

**the more pieces you have, the smaller each piece will be**

**There is only one digit**

**It looks like blocks :) pyramid**

**more parts, the smaller each part**

**I wonder if a brick layer would use this idea**

**the parts are getting smaller as you go down**

**it looks like a wall. the bricks get smaller as you move from the top to the bottom. I notice it is symmetrical. I wonder why the wall was built. How many little pieces in the whole wall.**

**decomposing shapes**

**Each row is equal to One whole**

**Notice there are no 7ths. More of the = diagrams are displayed.**

**equal to one**

**I notice 1 whole is broken up into many equal pieces. I wonder how the denominator relates to the size of each piece.**

**I notice a wall made of different sized bricks - from smaller to larger pieces**

**1= 2/2=3/3=4/4=5/5=6/6=8/8**

**symmetry**

**equivalent**
Ute Moore: there is a pyramid type shape in the whole
Sarah Dickie: Notice: rectangle of width one, each row is a
divided into pieces equal to one
Teresa Hammett: Pieces that are getting smaller are equal
Valerie Vanderport: builds like a tower, pieces get bigger as
you go up, smaller as you go down
Tina Smith: Parts of a whole
Denise Quarles: Notice: there are more pieces in each line but each
line is the same length.
leticia chapa: All parts will equal to one
Dustin Lockwood: Why some fractions have a half way point
with aline, but the others do not
Jessica Yancey: Seriously! Kids need 1/7 in the manipulatives!
Delores Rushing: Starting with concrete to abstract is
important
Georgia Molina: starts from a whole to pieces
Darlene Rowe: It's easy to see what is equivalent to 1 and 1/2.
Renee Catalano: You can easily rearrange the pieces to find
equivalent fractions
Susan Bardenhagen: equal parts that equal one whole
Susan mitzner: each strip is the same size but each have different
number of piece
Anne Carlne: the more pieces the smaller the pieces
Branch Pronk: Seeing stair steps that build relationships
bakan: All equal to one
Dave Hankin: one more piece each time
Dawn James: Wonder: Actually a wish - I wish the "1" was at the
far right.
Paaru Kwiatkowski: Same size whole in the top row all the way
to the bottom, but partitioned differently
Gayle Arbaugh: Students struggle with moving beyond the concrete
model of getting to 1 whole.
Shannon White: The more parts, the smaller the size. As amount
increases, quantity decreases.
Nora Marasigan: The number of blocks increase as it goes down.
Fran Huntoon: equivalence
Catherine Abbott: even numbers line up ...multiples of 3 line up
marianne_mammon: equivalence
Yvonne Arden: I notice lots of pieces, getting smaller. I wonder
how students might enjoy using or making a model of this...
Kia Barrieau: equivalence
Stephanie Sikes: Equivalent fractions
Margie Acabal: I notice partitions/divisions and I wonder how many
equal partitions are there
Michelle Green: equivalence - where do the lines line up and why?
Dustin Lockwood: Notions of odd and even
Mary Dahn: Relationship of parts to the whole
Terri Davis: Equivalent fractions
susan mitzner: comparison
Staci Erickson: Size
Lori McDevitt: might notice equivalences
Stephenia Courtney: divide
Jessica Yancey: equivalence
Teresa Hammett: equivalent fractions
Lynda Krivansky: equivalent fractions
Adrienne Shlagbaum: division
Kathryn Villarreal: relationships
Bobbi: equivalence
Danielle Portocarrero: equivalent fractions
John Sasko: The whole has to be same when comparing
Joan Albers: what makes a whole
Sandra Ubben: fractions equal to one - generalize a/a is one
Paaru Kwiatkowski: Equivency
Rowena West: Greater than and less than
Sherry Maxx: Each line builds from 7 parts to larger equal parts to one whole
Sarah Chu: relationships
Gricelda M.: what can make a whole
Ute Moore: How many pieces are in the whole
Shalini Singhal: a whole could be many equal pieces
Tracey Gillies: Unit thinking, decomposing, equivalence
Georgia Molina: equivalents
Brandon Daniel: parts to whole; equivalence
Tamara Dixon: partitioning
HILARY OMOKAFFE: How many parts could we shade to make up ?
Terri Davis: Why aren't they all labeled?
Marie Hannon: odd even
Danielle Portocarrero: composing and decomposing
Judy Gerwe: Judy Gerwe. More equal parts and size changes is smaller with more parts
Maureen O'Connell: if I use all of the parts it’s still one whole
Denise Walston: size of the partitions; equivalence
ANALINE BAUTISTA: equivalents
Marissa Day: relationships between fractions
Georgia Molina: part of a whole
Nahdiyah Abdur-Rahman: How the pieces would look as they get smaller
Gricelda M.: how many different ways a whole can be made
Edna Rieveros: parts and whole
Eddie Pecina: equivalence
Gail Dean: Which segments line up? What does this mean?
Gayle Arbaugh: More smaller pieces on the bottom row but the same length as the top row
Susan Bardenhagen: younger students would see building blocks
Jessica Yancey: ratio
Khaalia Taylor: comparing fractions
Angela Cooper: = fractions, smaller size units have greater denominator
Branch Pronk: comparing the relationships
HILARY OMOKAFFE: 1
Rachel Anderson: equivalent fractions
Yvonne Arden: the common total length
Sharon Black-MacKinnon: partitioning
Martisha Dunn: Equivalence
Shalini Singhal: 1=2/2, 3/3, 4/4
Sherry Maxx: equivalence and parts
ANALINE BAUTISTA: equal partitioning
Nicole Bayler: As the denominator gets bigger the pieces get smaller
Julie Vanderlugt: parts
Mary Hamilton: more parts = smaller size
Marie Hannon: I wonder what the next row will be? :)
Rachel Anderson: comparing fractions
Anne Carline: that the earlier method of dividing fraction into
more parts by folding paper doesn't work now
Carolyn Davis: Equivalence
Jessica Yancey: partitioning
Michelle Green: odds and even
Mark Phipps: symmetry
Amy Garwell: partitioning
Victoria Campbell: It is such a beautiful visual of the idea
that the more parts the whole is broken into, the smaller they get.
Shannon White: "Looks like a pyramid"
Thy Dinh: whole can be renamed many ways
Sandra Ubben: smaller the parts, the more you need to equal 1
Laurie Barker: Some lines line up and others don't
John Sasko: You can see the smaller ones in the larger ones
Alison McDaniel: dividing a whole into parts
Delores Rushing: Equivalence, relationship of whole to parts
Jamie Rossi: Where is there symmetry
Sharon Black-MacKinnon: share with more people
Kim Neill: equivalence, the idea that the more pieces the
smaller they are--and if you're comparing them the wholes have to be the same size
Mary France Imperial: division, partitioning
Janet Jimenez: Initially, you get a feel of what knowledge students
have regarding fractions
Regina Williams: proportionality
Renee Catalano: The more people you share with the smaller the piece
you each get
Ute Moore: If the 1 represents one at the line, what about the
other lines?
Stephania Courtney: smaller items make 1
Meridith Jackson: equivalence
Catherine Abbott: How can I use this to divide things fairly?
HILARY OMOKAFFE: The parts keeps getting smaller.
Denise Walston: comparisons using the division of pieces
Martisha Dunn: Smaller pieces leading up to a whole
leticia chapa: Unit fractions
Jessica Yancey: comparing fractions

Dawn James: mathematical argumentation: Why does the top layer only have “1” shown.

Margie Acabal: equivalent fractions

Helene Alalouf: We tend to give the completed fraction tiles sets to students rather than letting them reach the understanding of relationships! Thank you for this idea!

Shalini Singhal: 1/5

Lesly Brown: How many different parts anything can be broken into.

Shalini Singhal: 1/6

Leah Watson-Rodgers: fifths and twelfths

Janet Jimenez: They can find the benchmark 1/2

Jessica Yancey: 1/5 and 1/2

Clara Modlin: The first thing I do with fraction bars is give kids jumbled bars and have them take ~5 min to put them together like this—first thing I do in my fractions unit!

bakn: think about multiples

Jessica Yancey: 1/2 and 1/3

Ann Neely: They would break the fifths and sixths in half.

Thy Dinh: I agree that we label these charts too soon without having kids look at them first

Sarah Chu: d

HILARY OMOKAFFE: This activity seem advanced for grade 3/4 don't you think?

Bobbi: tenths are related to fifths because 5 x 2 is 10. Hopefully they can figure that out

Nicole Bayler: 1/10 are related to 1/5 and 1/6 is related to 1/12. They can use multiples/factors to help them divide it easily.

Carolyn Davis: 1/2=5/10=6/12

Brandon Daniel: Magnitude and size of unit. Patterns!

Lori McDevitt: use fifths to help determine tenths

bakn: factors

Ann Neely: I love that question.

Fran Huntoon: It’s a great reminder of the importance of multiplicative thinking as you move to fractions.

Terri Davis: I love using unlabeled fraction bars so students need to figure out the units themselves.

Regina Williams: They would need to recognize which parts can be used to create equivalent parts - fifths should be used to make tenths, sixths should be used to make twelfths

Shalini Singhal: Much deeper understanding

Tracey Gillies: Love this for equivalency in 4th grade. Really lets them think about the relationship.

Melissa Magnotta: That is a great question for number lines

Sherry Maxx: fractions from parts to whole comparisons

Mary Dahn: part to total; each part is 1 section of the total number of sections

Amy Garwell: tying this to measurement to see fractional pieces

Catherine Abbott: Ooooh. I like the relationship to build the
number line. I could see using this as a review in Grade 6. Image flipping this for negative fractions on a number line.

01:06:35 Sherry Maxx: I love the number line comparisons
01:06:45 Jessica Yancey: Fraction division. How many 1/4 fit into 1/2?
01:06:50 Monique Harrell-Watford: Yes!
01:07:19 Jessica Yancey: 4 groups of 3
01:07:19 Monique Harrell-Watford: I teach my students that all the time. You don’t have to use formulas to determine equivalence. Use models.

01:07:23 Gricelda M.: 4 groups of 3
01:07:24 Shalini Singhal: 4 rows of 3 stars
01:07:24 Michelle Green: 4 groups of 3 items
01:07:25 Brandon Daniel: 4 copies of 3
01:07:26 Staci Erickson: 4 groups of 3
01:07:27 Georgia Molina: 12
01:07:28 Alicia Sotello: 4 groups of 3
01:07:28 Mark Vasicek: 12
01:07:29 Julie Vanderlugt: four groups of three
01:07:30 Megan Day: 12
01:07:30 Kia Barrieau: 4 rows of 3, 4 groups of 3
01:07:31 Tani Molina: 4 groups of 3
01:07:32 Adrienne Shlagbaum: This is exactly how I introduce this topic!!!
01:07:32 Sandra Ubben: equals 12
01:07:33 Branch Pronk: 4 groups of 3
01:07:33 Khaalia Taylor: 4 groups of 3 equals 12
01:07:33 Sarah Morris: 4 groups of 3
01:07:33 Nadia Messadi: 4 groups of 3
01:07:33 Lori McDevitt: X means groups of so 4 groups of 3
01:07:34 Meridith Jackson: 4 copies of 3
01:07:34 Julie Vanderlugt: 12
01:07:34 Ute Moore: four groups of three
01:07:35 Alicia Scott: Four groups of three things
01:07:35 Paaru Kwiatkowski: 4 groups of 3
01:07:35 Liz Morris: 4 groups of 3
01:07:35 Alison McDaniel: It equals 12
01:07:35 Susan Bardenhagen: 4 groups of 3
01:07:35 Lisa Rogers: 4 groups of 3
01:07:36 James Hensley: 4 groups of 3
01:07:36 Sandhya Raman: 4 groups of 3
01:07:36 Linda Rodriguez: 3 copies of 4
01:07:37 Tracey Gillies: Number go groups times size of the group
01:07:37 Ana Guerrero: Four groups of 3
01:07:37 Rachel Anderson: 4 groups of 3 = 12
01:07:37 Amy Garwell: 4 groups of 3 equals 12
01:07:37 Lori Prantil: 4 groups of 3 or 3 groups of 4
01:07:37 Joan Albers: 4 groups of 3
01:07:37 Marissa Day: 4 rows of 3 in an array
01:07:37 Melissa McCann: four groups of 3
01:07:38 Eddie Pecina: four groups of three
01:07:38 Mary Dahn: 4 equal groups of 3
01:07:38 Roberta Yeager: 4 groups of 3
01:07:38 Michelle Webb: 12
01:07:38 Valerie Vanderport: 4 groups of three
01:07:39 Eric Stauth: 2 x 3 + 2 x 3
01:07:39 Mary France Imperial: 12
01:07:39 Terri Davis: It's 4 groups of 3.
01:07:40 Georgia Molina: 4 groups of 3
01:07:40 Alison Pepero: 4 groups of 3 is 12
01:07:41 Sharon Black-MacKinnon: 4 groups of 3 is equivalent to 12
01:07:41 Jolene Peterson: 12
4 groups of 3
3 groups of 4
01:07:41 Nora Marasigan: 4 groups of 3
01:07:41 Angela Cooper: Repeated addition of 4 three times
01:07:41 Jennifer Perri: 4 groups of 3
01:07:42 John Sasko: It's twice as much as 2 x 3
01:07:42 Diana Rixom: 4 sets of 3 = 12
01:07:42 Darlene Rowe: 4 groups of 3 in each group
01:07:42 Renee Catalano: 4 groups of 3 things
01:07:42 Denise Quarles: It's the same as 3 x 4 and 2 x 2 x 3
01:07:42 Sarah Chu: 4 groups of 3
01:07:42 Maricela Sanchez: 4 groups of 3 or 3 groups of 4
01:07:43 Shalini Singhal: 3 rows of 4 stars
01:07:43 Staci Erickson: 4 rows of 3
01:07:43 Maureen O'Connell: four groups of 3
01:07:44 Diane Anderson: 4 groups of 3
01:07:44 Deanna Rigdon: 4 groups of 3
01:07:44 Lisa Allen: it is 4 groups of 3
01:07:44 Teresa Hammett: 4 groups of 3 or 3 groups of 4
01:07:44 Flora Wright: 4 groups of 3
01:07:44 Julie Secrest: 4 groups of 3
01:07:44 Thy Dinh: it's the same as 3 X 4, 4 groups of 3 or 3 groups of 4
01:07:44 Gail Dean: four groups of three each or 3 groups of four each
01:07:45 Michelle Green: 3+3+3+3
01:07:45 Adrienne Shlagbaum: 3+3+3+3
01:07:45 Danielle Portocarrero: you either have 4 groups of 3 or 3 groups of 4
01:07:45 Janet Jimenez: 4 equal groups 3 = 12
01:07:46 Lisa Pybus: 4 , 3 times is 12
01:07:46 Karin Leonard: 4 groups of 3
01:07:47 lynnc: The answer will be bigger, because you have more of the fours.
01:07:48 Traci Emory: 4 groups of three objects
01:07:48 Kathryn Villarreal: It means 4 copies of 3
01:07:49 HILARY OMKAFFE: 4 rows of 3 sticks.
01:07:49 leticia chapa: 4 groups of 3
01:07:49 Jodi Bland: arrays rows and columns
01:07:49 Mark Vasicek: 4 groups of 3 parts is equal to 12 parts total
01:07:49 Fran Huntoon: It is a multiplicative relationships
01:07:49 Julie Vanderlugt: x means times or groups of
01:07:50 Ute Moore: 4 rows 3 times
01:07:51 Mark Phipps: 4 threes or 3 fours
01:07:51 Alicia Scott: four copies of three
01:07:51 Lynda Krivansky: area
01:07:51 Susan Bardenhagen: a group of 3 4 times
01:07:52 Anne Carline: that it is four groups of three
01:07:52 Callie Herring: the product is the same as 3x4
01:07:52 Gayle Arbaugh: four rows or 3 equals 12
01:07:52 Yvonne Arden: repeat adding
01:07:52 bakn: four rows of 3 is 12
01:07:53 Bobbi: it is 4 three times
01:07:53 Caitlin Harrigan: the sum is an even number
01:07:54 Terri Davis: a group of 3, 4 times
01:07:54 Nicole Hammell: an area of 12
01:07:55 Victoria Campbell: an expression of multiplication
01:07:55 Georgia Molina: 3 groups of 4
01:07:55 Judith Harris: It is four groups of 3, it can be represented by an array, it is the same as 3 x 4
01:07:55 Martisha Dunn: 4 groups of 3
01:07:56 Johanna Bautista: you can count by 3 4 times or 4 3 times
01:07:56 Jamie Rossi: 3 x 4 is also the same result
01:07:56 Stephenia Courtney: 4 groups of 3
01:07:56 Laurie Barker: it makes an array
01:07:56 Ana Guerrero: four times THE three
01:07:57 Sandhya Raman: 4 is being added three times
01:07:58 Carolyn Davis: 4 groups of 3
01:07:58 Kim Neill: 4 groups of three
01:07:59 Sharon Black-MacKinnon: 2 copies of 3 doubled
01:08:00 Sherry Maxx: I know it's the same as 3 x 4 and equals 12
01:08:00 Nadia Messadi: array
01:08:01 Catherine Abbott: area of rectangle with side length 4 and width 3
01:08:03 Julie Kolquist: four groups of three - repeated addition of 3 fours
01:08:03 Susan Bardenhagen: an array of 4 by 3
01:08:03 Kristin DeLorenzo: 3 + 3 + 3 + 3
01:08:04 Julie Dill: Double of 2 x 3
01:08:04 Paaru Kwiatkowski: four threes
01:08:04 Roberta Yeager: 4 rows of 3
01:08:05 Nicole Bayler: four groups of 3...3+3+3+3
01:08:05 Dawn James: 4+4+4
01:08:05 Jessica Yancey: all four 3s are the same
01:08:06 Liz Morris: an expression
01:08:06 Mary Hamilton: 3+3+3+3
01:08:07 Martisha Dunn: sets or groups
01:08:07 susan mitzner: an array of 4 rows and 3 in each row
01:08:07 Mary Jo Dunne: 4 groups of 3, makes an array, equals 12
01:08:07 Fran Huntoon: 4 scaled three times or 3 scaled 4 times
01:08:08 Anne Carline: that it is a group of 3 things
01:08:09 Helene Alalouf: Distinguish arrays of 4 rows of 3 or 3 rows of 4
Rowena West: I can decompose 4 to 2 and then multiply it by 3 then add 6 to 6

Kia Barrieau: (2 *3) + (2 * 3)

Janet Jimenez: odd X even = even

Judy Gerwe: Judy Gerwe. 4 sets of 3 things

Jamie Rossi: You can draw a pic

Deanna Rigdon: 4 rows with 3 in each row

Gayle Arbaugh: 3x4 will equal the same product

Shannon White: 12 is 4 times the size of 3

Robert Yeager: 4+4+4

Tracey Gillies: copies of unit fractions

Fran Huntoon: scaling

Alison McDaniel: different strategies to solve the problem

Jet Yeung: groups of 4 things and groups of 3 =12

Adrienne Shlagbaum: 4 equal groups of a fractional unit

HILARY OMOKAFFE: Arrangement.

Patti Gawronski: 4 groups of 3 = 12

Leah Watson-Rodgers: could be 4/3 - four groups of 1/3

Mary Dahn: equal groups for both

Anne Carline: four groups of 1/3

Brandon Daniel: whole number operations relating to fractions. copies of units.

Judith Harris: Area

Mark Vasicek: An area model

Dave Elbourne: 4 wholes times 3 wholes

Dawn James: Mixed numbers

LARITA MITCHELL: 4 groups of 3

Sandra Ubben: 5/4 is five one-fourths or 1/4

Maureen O'Connell: Equal groups

Jessica Alvear-Moreno: groups of

Renee Catalano: arrays

Adrienne Shlagbaum: multiplication of a whole number by a fraction

Lori McDevitt: area and perimeter

Paaru Kwiatkowski: four groups of 1/3

Melissa Magnotta: Four groups of 1/3

Carolyn Davis: arrays of equal groups

Adrienne Shlagbaum: mixed numbers

Tracey Gillies: Copies of unit fractions can lead to operations

Lynda Krivansky: area

merianne_mammon: equal groups of fractions

Melissa McCann: groups

Anne Carline: showing more than on3

Fran Huntoon: the connection to repeated addition and multiplication

Meridith Jackson: thinking of 3 as a unit, moving towards unit fraction (i.e. 4 copies of 1 third)

Denise Quarles: 1/4 x 1/3

Melissa McCann: arrays

Alison McDaniel: improper fractions
01:08:55 HILARY OMOKAFFE: operation in fraction.
01:08:55 Catherine Abbott: 4 groups of 3/2's
01:08:56 Nicole Bayler: four groups of 1/3
01:08:57 Alayna Wearly: representations of fraction multiplication
01:08:57 Shalini Singhal: distributive property
01:08:57 Mary Jo Dunne: equal groups
01:08:58 Amy Garwell: improper fractions
01:08:58 Danielle Portocarrero: finding equivalent fractions
01:08:58 Anne Carline: more than one
01:08:58 Khaalia Taylor: four thirds as 4 copies of 1/3
01:08:59 Traci Emory: area
01:09:00 Eddie Pecina: multiplying a whole to fractions
01:09:01 Terri Davis: Use the same language: if 4x3 is 4 groups of 3, then 4x1/2 is 4 groups of 1/2.
01:09:01 Lisa Pybus: 4 groups of 1/3
01:09:01 Colleen Feller: 1/2 x 1/2 = 1/2 copy of 1/2 = 1/4
01:09:01 Rachel Anderson: 4 groups of 1/3
01:09:02 Janet Jimenez: Making equal groups
01:09:02 LARITA MITCHELL: putting equal items into equal groups
01:09:02 Brandon Daniel: iterating
01:09:03 Georgia Molina: mixed numbers
01:09:03 Julie Vanderlugt: multiplicative thinking
01:09:04 Ute Moore: 4 parts of 3
01:09:05 Yvonne Arden: multiple items or groups of items in a set
01:09:06 Thy Dinh: multiplying unit fractions
01:09:07 Jamie Rossi: partial products?? later on
01:09:07 Shalini Singhal: equal groups
01:09:09 Jennifer Russell: # of copies of a certain size piece
01:09:11 bakn: finding equivalent fractions
01:09:12 Mary Jo Dunne: arrays...area and perimeter
01:09:15 Lisa Allen: Building toward 1/4 x 1/3
01:09:15 Angela Cooper: 4 x 3/1=
01:09:15 HILARY OMOKAFFE: Ordering of fraction.
01:09:16 Delores Rushing: Delores Four groups of three
01:09:17 Gail Dean: dividing groups
01:09:20 Branch Pronk: equal groups
01:09:22 Alicia Scott: Four copies of size 3
01:09:24 Edna Rieveros: repeated addition
01:09:26 Gayle Arbaugh: going from whole number operations to operations on fractions
01:09:31 Kia Barrieau: 4 copies of 1/3 = 4 x 1/3
01:09:41 Ute Moore: equal groups and equal parts
01:10:01 Martisha Dunn: arrays if 4x3 or 3 x4 using chips to compare
01:10:44 Fran Huntoon: Similar to some of the activities fro middle school at the Math Shell Centre
01:11:05 Georgia Molina: array
01:12:47 Fran Huntoon: one of my favorite models - true area for fraction multiplication
01:14:08 Gricelda M.: How do we get them out of going straight to algorithm?
Jessica Yancey: And kids can't learn concepts once they partially know an algorithm!

Shalini Singhal: Coherence

Sandra Ubben: So many connections for students.

Alayna Wearly: I have a lot to learn about fractions...

Caitlin Harrigan: Teacher- how this helps student build on mathematic language

Valerie Vanderport: Teacher: vertical alignment knowledge

Nicole Bayler: From a student - moving from concrete to abstract

Mark Vasicek: Routines. Progression. Number of pieces and the size of each piece.

Gricelda M.: teacher: building on what they know

Jessica Alvear-Moreno: From both student and teacher lens is to use the VISUALS

Catherine Abbott: It would be very helpful to help vertical collaboration. We receive our Grade 6 students from 3 different elementary schools where they have very different experiences.

Anne Carline: from student - make sure that their foundation of fractions is firm prior to moving into numbers.

Gail Dean: student lens - concrete to abstract

Ann Neely: From a teacher lens you really have to be familiar with the entire path your students experience

Roberta Yeager: coherence

Shalini Singhal: student: building on what i know

Kathryn Villarreal: students don't enter a new grade as a blank slate!

Lori Prantil: teacher- need to give students the tools and the progression.

Kia Barrieau: Coherence is more important now than ever in light of “missed learning.”

Stephenia Courtney: Understanding and making meaning not just the algorithm

Roberta Yeager: connections

Lori McDevitt: teacher - each grade level needs to understand the progression

Julie Vanderlugt: Student lens: this are connected and build on one another so it makes more sense.

Patti Gawronski: multiple representations that progress coherently

Yvonne Arden: Student: we need more real-life examples!!

Renee Catalano: I love seeing the flow of fractions from kinder to 5th. We really need to do more intergrade level looks so teachers see the routines from the previous grade and can build on them.

Terri Davis: Love choosing a routine to connect prior knowledge to new content.

Linda Rodriguez: we have to get the consistence between grade levels - as in we need to retain the same teachers.

Sarah Chu: From a student's learning lens, it's important to make sense of their learning of math

Christopher Kenny: Conceptual understanding is key!
Mary Jo Dunne: Student learning lens...it's all connected!
Sara Haas: students thrive on visuals
lynn: Always look for ways to connect things for students.
Teresa Hammett: Student: They would have more connection from idea
to idea
Sara Klein: Students are really empowered when they discover the
gap through these types of explorations and experiences.
Melissa McCann: educators need to understand the coherence and
progression on concepts to help students make connections
Fran Huntoon: The opportunity for discourse and for students to
make sense of what is happening. The person who talks about the math learns the
math.
Tracey Gillies: Coherence is key. We need to think through this to
purposefully plan for how kids can make connections.
Carolyn Craig: consistency
Joan Albers: build on prior knowledge and make connections
Bobbi: students needs lots of visuals in both the early and the
later stages of fractions
Marie Hannon: Visuals!
Colleen Feller: the connections!!!
Rachel Anderson: Having the visual models carry on from first
grade greatly helps with understanding
Mark Vasicek: Student: It fits together.
HILARY OMOKAFFE: Visual representation of operation in
fraction is better.
Shalini Singhal: Beautifully done
Angela Cooper: Student-Teachers must show many visuals of
representing fractions.
bakn: The time spent on the conceptual learning will pay off in
the end.
Ute Moore: teacher lens: the importance to have coherent
language from one grade level to the next of math vocabulary.
Khaalia Taylor: Connections with whole number understandings and
strategies
dave Hankin: Teacher - seeing the logical progression of skills
from year to year
Gayle Arbaugh: We need to focus our pd in domains and the coherence
around that
Eddie Pecina: Student progressions
Traci Emory: more pictorial teaching
Jessica Alvear-Moreno: As the teacher--PROGRESSION---LEARN THE
PROGRESSION
Cesely Thompson: Vertical alignment is important
Kia Barrieau: Students: “This reminds me of…”
Danielle Portocarrero: from a student learning lens the visuals
help to make the connections and discussions
Thy Dinh: models need to be used at every level of progression
language and concepts first and then algorithms much later
Dave Elbourne: stay away from algorithms
Nahdiyah Abdur-Rahman: students need spiral reviews
Susan Bardenhagen: student- there is a way to show how fractions connect to multi and division

Dawn James: Teacher Lens: Thank you for showing how the use of area helps students to understand multiplying fractions. It helped me!

Brandon Daniel: need for more vertical discussions between all elementary math teachers to enhance each other. Use routines to help fill in gaps

Ann Neely: without coherence there is no true understanding

Maureen O'Connell: If teachers bring this progression to students fractions lose that intimidation factor. Teachers understanding more helps so much

Diana Rixom: As a student you need the teacher to build from prior knowledge and not from "the text". Progression is important

Mary Dahn: Connections and progressions

Carolyn Craig: making connections

Alison Pepero: conceptual understanding

Marissa Day: how important the cohesion is from k-5. If any grade level doesn't do their part, its harder for the upper grades

Sharon Black-MacKinnon: Student- not so scary to do fractions with the visuals

Mark Vasicek: Manipulatives, too

LARITA MITCHELL: building on what they already know and what we know they know, lol

Eddie Pecina: Teacher-progressions

Cindy Luper: All students have access to the learning because they are allowed to explore and process.

Sarah Chu: from a teacher's len's its important to build on and the progression of it and incorporate the visuals

Sara Haas: connections!

Sarah Morris: Student - they need a lot of exposure and concepts need to build on each other Teacher - model/demonstrate prior learning and make connections to new learning

Julie Kolquist: student confidence - they recognize progression so they can understand

Denise Walston: the connections across grade levels- design lessons that will help students make connections

Anne Carline: make sure that you don't rush the learning. let them explore with concrete and pose questions that have more than one answer

Colleen Feller: fractions are beautiful!

fran V.: structured and coherent structure allows for deeper understanding. make sense of math

Melissa McCann: it’s not enough to know the standards for only the grade you teach

Johanna Bautista: The visuals help build an understanding

Julie Vanderlugt: Teacher lens: The relationship and progression are so important.

Valerie Vanderport: Student: intentional progression of skills Teacher: knowledge of vertical alignment

Gail Dean: teacher break down concepts so we match where students are in their learning

Amy Garwell: student- how important the understanding of the
concepts is not just learning the formula. as teacher- being able to show this to students because I am not comfortable with this way.

01:15:24 Sandra Ubben: Routines are a great way to connect to previous learning and initiate rich discourse.

01:15:25 Carolyn Davis: Concrete to abstract progressions

01:15:25 Lori Prantil: students- liking pics

01:15:26 Cindy Bryant: Loved routines to invite students in

01:15:27 Nicole Bayler: From a teacher - provide many representations and usages for the different concepts

01:15:29 Fran Huntoon: Not every student has to be at the same place at the same time.

01:15:29 Diane Anderson: Conceptual

01:15:30 Shalini Singhal: I never connected arrays to fractions

01:15:30 Angela Cooper: Spiral and connect all visuals with math talk.

01:15:32 Teresa Hammett: Teacher: I like seeing how the progression uses the piece before to build that strong foundation.

01:15:32 Julie Secrest: teacher- importance of making students understand fractions by using the progression

01:15:33 Dave Elbourne: help the students along the fraction pathway

01:15:33 Jessica Yancey: Don't skip past the activities that build true mathematical understanding to algorithms just because they are faster.

01:15:34 Yvonne Arden: Teacher: show real life applications of calculating with fractions

01:15:34 Georgia Molina: making connections, visuals,

01:15:34 Nadia Messadi: building the knowledge from concrete to abstract

01:15:35 Sara Klein: Concrete belongs in the classroom all the way through, not just in the lower grades!

01:15:35 Ann Neely: purposeful planning and connecting from teachers is necessary for student success

01:15:36 Branch Pronk: lots of visuals to build understanding.

01:15:36 Gayle Arbaugh: Students need connection to prior learning in the same content

01:15:36 Mary Jo Dunne: Building on prior knowledge by being familiar with the progression

01:15:38 Khaalia Taylor: Understanding the progressions of the fractions standards

01:15:38 Phyllis Creech: Understanding the vertical alignment with fractions

01:15:39 Mark Vasichek: Yes, you have to know the whole path, upper grades, too.

01:15:39 Judy Gerwe: Judy Gerwe I work with special Ed students. These models make fraction easier to understand

01:15:40 Cindy Luper: Teachers learn a different way then they were probably taught fractions.

01:15:40 LARITA MITCHELL: Connectivity

01:15:43 Darlene Bailey: Students need conceptual understanding to move onto the algorithm.

01:15:44 bakn: Vertical planning is so important!

01:15:44 Melissa McCann: the representations are logically related

01:15:44 Liz Walton: the progression is so important

01:15:44 Danielle Bentley: Yes, teachers must know the entire path!
Lisa Pybus: When students connect to prior knowledge, they take ownership of their learning. For teachers, we can be confident as we start a lesson seeing what they know.

Danielle Portocarrero: From the teacher learning lens definitely need to know the progression.

Susan Mitzner: Students are constructing their understanding which will be internalized for them.

Sandra Pech: The progression builds understanding so that students then "see" how the algorithms work and why they work.

John Sasko: T - the language is so important! You consistently used the same words and the same ways of thinking. You rarely said numerator or denominator. So it's the representations and also the language that helps us make sense when we can connect those with what we already know.

Dian Kurniawan: Student understanding to memorize reasoning of fraction.

Ute Moore: Student lens: remind of what was learned before and building on that.

Darlene Rowe: There is a definite progression of understanding. Resist following curriculum in a certain order if it doesn't make sense for students.

Catherine Abbott: Student....I know this stuff. I just get better at it.

Helene Alalouf: Multiple representations and seeing what is same/different through comparing (critical thinking) to build understanding and mathematical reasoning and language.

Ann Neely: Yes!

HILARY OMOKAFFE: Students should always know how to visually solve a problem no matter what.

Thy Dinh: Helps all teachers in a site see how they build on each other.

Jet Yeung: Teacher lens - building on what students know.

Denise Walston: Knowing the progressions helps students make connections.

Victoria Campbell: It's important to allow those activities that help build the vocabulary needed to understand concepts.

Sherry Maxx: Connection to fractions.

Nahed Sabra: In a student lens visual and a lot of practice will help a lot.

Eddie Pecina: That's it?

Traci Emory: Important to keep math language the same.

Maureen O'Connell: Thank you!

Jessica Yancey: Elementary teachers need time to work with upper grades to understand the importance of these activities.

Martisha Dunn: Teacher: connecting from k-4 Student: lack of gaps from k-4.

Fran Huntoon: Routines for Reasoning is a great book.

Trena Wilkerson: Thank you Kristin and Jody! Great representations and discussions!

Ann Neely: Thank you so much. This was so helpful and I will be watching this again with colleagues soon.
Melissa McCann: Thank you!
Lori McDevitt: thank you!
Georgia Molina: Thank you Kristin and Jody
Gail Dean: Thank you! This is motivation to continue learning.
Heather Steen: Thank you so much!
Jessica Yancey: Thank you!!
Shalini Singhal: Loved the presentation!
Camille Greene: thank you
Mohamed Jamaludeen Thirapusa Mohaideen: thank you
Catherine Abbott: PD opportunities over the summer
Maricela Sanchez: Thank you!
Sharon Black-MacKinnon: Thank you so much for sharing!
Lynda Krivansky: thank you!
Kendra Edwards: Thank you!
bakn: This presentation was so useful!
James Hensley: Thank you!
Traci Emory: awesome lesson!
Diana Rixom: Thank you
John Sasko: I could do this for 2 more hours - Easily!!
Joan Albers: Thank you!
Shalini Singhal: thank you!
Kim Neill: Thank you! I really enjoyed this!
Julie Secrest: very informative! thank you!
Sharon Ling: Thank you!
Lori Prantil: thanks you.
Eddie Pecina: Thank you for the insight
Dawn James: Thank you for this session.
Jennifer Perri: Thank you so much. It was amazing!!!!!
Danielle Bentley: Thank you so much! Your presentation was wonderful! I learned a TON! These presentations just keep getting better and better!
Tamikia Greene: THANK YOU SO MUCH!
Denise Walston: thank you
Sherry Maxx: Thank you!
Darlene Bailey: Thank you! Awesome JOB!
Christopher Kenny: Thank you very much!
Nahdiyah Abdur-Rahman: Thank You!!!!
Stephania Courtney: Thank you!!!
Traci Emory: thank you
Branch Pronk: Thank you!
Lesly Brown: From a student’s learning lens, I visualize how the student begins to better understand why the numerator comes from and where the denominator comes from.
Julie Kolquist: thank you!
Jet Yeung: Thank you for your information
Marie Hannon: Thank you
Georgia Molina: awesome job
LARITA MITCHELL: Thank you!
John Sasko: Thank you Kristin and Jody!
Sherry: ou
Edna Rioveros: Thank you... I learned so MUCH!!!
Daniel Irving: Thank you very much for the incredible presentation!
Gayle Arbaugh: Thank you!
Regina Williams: Thank you!
Diane Anderson: Thank You!!
Nora Marasigan: Thank you so much also! I learned a lot from you!
PATRICK GUERRA: thank you so much
Dewey Gottlieb: great session! thanks!
Liz Morris: Thank you!
Leah Watson-Rodgers: thank you!!
Kia Barrieau: So good!!
Carolyn Davis: Thank you!
Ana Guerrero: Thanks
Victoria Campbell: Thank you so much!
Thy Dinh: thank you
Sarah Chu: thank you so much
Phyllis Creech: Thanks
Nicole Young: That was amazng! Thank you!
Michelle Webb: thank you
Cindy Luper: Thanks.
Jessica Alvear-Moreno: Great session!!!
Catherine Abbott: Yes....thank you very much
Barb Fukushima: Thank you Kristin and Jody!!!
Dave Elbourne: thank you
Margie Acabal: Thank you so much
Deanna Rigdon: thank you so very much
Dave Hankin: Thank you from Globe, Arizona!
Charlene Martin: Awesome
Tracy Wood: Thank you so much!
Brandon Daniel: AWESOME!
Danielle Portocarrerero: Thank you this was so informative
Rosalyn Smith: Thank you!!!
Maddy: Thank you!
Janet Jimenez: Thank you very much for this webinar. It was great.
mariannes_mamon: thank you!
Sandra Ubben: Thank you for a awesome webinar!
Sarah Dickie: Thanks very much! Very interesting!
Terri Davis: Very motivating presentation!
Ayunda Sri Wahyuningrum: thank you so much!
Georgia Molina: Thank you NCTM
Danielle Bentley: I have already signed up!
HILARY OMOKAFFE: Thank you for such great presentation.
Shannon White: Thank you!
Kelly: Thank you so much for the well-thought out presentation. :)
Mary France Imperial: Thank you so much. I love it.. learned a lot
Miriam Glock: Thank you!
C Robertson: Thank you so much to all for presentation. Very helpful
Rowena West: Awesome webinair!
Eddie Pecina: ok Thank you
susan mitzner: Great presentation thank you
Bobbi: great way to remind us that we need to know what the students know about fractions
Ann Neely: Thank you to Chonda too! I appreciate your emails.
Katrina Baskfield: Great ideas, thank you!
Roberta Yeager: Thank you
Sara VanDerWerf: Thanks to both of you. It was a respite from the craziness and tragedy in my hometown (Minneapolis). Thanks - thanks thanks
Martisha Dunn: love this webinar
Patti Gawronski: Thank you!
Alison Pepero: Awesome session. Thank you!
Lorie Huff: Thank you Kristin, Jody, Beth, Chonda, Trena, Robert, Dave, Faith, and NCTM!
Danielle Bentley: Yes, Ms. Chonda! Thank you!
Julie Vanderlugt: Thanks so much! Lots of great information that helps fractions make sense and progress in a logical fashion connecting to other parts of math. So appreciate your ideas!
Catherine Abbott: I've been promoting the membership deal with my colleague.
Nadia Messadi: Thank you!
Carol Matsumoto: Thank you both for presenting. Thank you Beth, Chonda, Faith, Dave for your support.
Trena Wilkerson: NCTM Staff are awesome!!!
Khaalia Taylor: Great. Thank you!
Catherine Abbott: What if you have already renewed for 2 years before all this started?
Eddie Pecina: oh wow cool
Cicely Washington: Thank you this was very informative!
Eddie Pecina: Yes. Thank you so much
Mary Hamilton: thank you
Gricelda M.: Thank you so much!
Valerie Vanderport: Thank you!
Catherine Abbott: WHOOP WHOOP APPLAUSE APPLAUSE
Cristy Holtzclaw: ☺☺☺☺☺
Mary Dahn: Thank you!!
Stephenia Courtney: AMAZING and we appreciate you SO much!!
Mary France Imperial: Thank you so much.. I am grateful for all you guys for sharing
Karin Leonard: Thank you for your time. Great information!
Denise Walston: ☺☺☺
Trena Wilkerson: Go Cindy!!! Thank you so much for your leadership!
LARITA MITCHELL: Thank you ALL!
Rita shamrock: From Rita Thank you
Helene Alalouf: THANK YOU ALL! STAY SAFE!
Olga Kosheleva: Thank you.
Danielle Grenader: Thank you!
Nahed Sabra: on May 26 Th i did not get my certificate
Natalie Fawthrop Pooler: Amazing thanks
Nicole Bayler: Thank you.
01:19:36 Noe Eugenio: Thank you very much!!!
01:19:46 Charleta White-Fletcher: Thank You
01:19:48 Sandra Pech: thank you
01:19:52 Stacy Milas: Thank you!!!!
01:19:57 Jodi Bland: Thanks
01:19:58 Dawn James: The math training was most helpful. Thank you.
01:19:58 Fran Huntoon: Thank you!
01:20:03 John Sasko: Just clap!!
01:20:09 Mark Phipps: I was expecting ominous music
01:20:29 Gricelda M.: Will we get copies of the ppt?
01:20:42 Meaghan McIntyre: Thank you
01:20:43 Nyla Moore-McCreary: Thank you!!!!
01:20:45 Catherine Abbott: So we just print off the certificate?
01:21:04 Mark Phipps: Vampira
01:21:08 C Robertson: You guys always brighten my day, especially at the end...funny 😁
01:21:25 Robin Harbour: You need to pay your power bill...
01:21:34 Meaghan McIntyre: It’s all good
01:21:37 HILARY OMOKAFFE: Thank you guys.