

Kristin Keith:we will begin at 7 pm ET (15 minutes)

Kristin Keith:Where is everyone from?

Jenny Squire:I'm from Sydney, Australia.

Karen Moorman:Hi ! Karen here from Ottawa, Canada

Melissa Springer:Hi! Missy from Palm Harbor, Florida

Nadine Meredith:Sydney, Australia with my team

Jad Salameh:Hi, Jad from Louisville, KY USA

Muriel Clarke:I'm from the Florida Keys!

LaurieLee Wardyga:Hi! Natick, MA

Heidi Hall:hi!!! from AZ

Brian Randall:Brian from Pennsylvania

monica sharma:Hi Gurgaon, India

Lori Martin:Bartlesville OK

Laura Monahan:Sacramento, CA

Marty Beck:Marty from Bettendorf, Iowa

Anu Kalra:Hi , Anu from Melbourne

Patricia Eberhardt:Hi from sunny Phx AZ

Sarah Potter:Hi everyone! Sarah from 1st State of Delaware! :)

Mary Violette:I'm from Maine

Caroline Heslop:Caroline H. Ottawa Ontario Canada

Brian Chalmers:Shanghai, China

Ronald LeDuc:I am from Fayetteville, NC

Kim Ellis:From Orlando, FL

Ann Marie Genco:Tacoma, WA

Jane Tucker:Spokane, Washington

Robert Gilpatric :Hi...Maine

Shelley Hunter:Hello from New Brunswick, Canada.

Nicolle Ristow:hi! Nicolle from forest lake,man

Ralph Hameni Bieleu:Hi Ralph , Chantilly , VA

Anita Simpson 2:Columbus Ohio

Mandy Peterson:Winchester, VA

Dee Crescitelli:Dee in Frankfort, Kentucky- hi everyone!

Molly Sweeney:Hello! Des Moines, IA

Elisa Waingort:Hello everyone! Elisa, grade 5 teacher in Calgary, Alberta tuning in. Looking forward to this webinar.

Debra Corcoran:Long Beach, CA

Jessica Kubek:Hi from Elkton Maryland

Janelle Smith:Hello! I teach 5th grade in the state of Maryland

Ellen Murphy:Ellen Angebrannt-New Jersey :)

Sophia Montiel:Denver, CO

Katy Long:Hello from Phoenix, AZ

Johanna Gibson:I am from Florence, SC

Ronald LeDuc:I am a Graduate Student at UNCP, Middle Grades Math

Lisa O'Malley:Hello. From WI!

Anthony Piparo:Hi from West Orange, NJ

Tiffany CAmpbell:Tiffany from Clarendon, TX

Katy Scherr:Hi! I teach 5th grade in Nevada.

Stacie Kyhn:Hello from Apache Junction, AZ

Christine Pacinello:Hello

David Sheehy:Tilton, NH

Jodell Rutter:Jodell from Mathews, Virginia

Christine Pacinello:I am watching from Long Island NY

MaryJean Rivera:Hello from Montgomery, Illinois

Cezanne Ashby:Mount Vernon, WA

Marcel te Bokkel:hello. Toronto

MegCarolyn Remesz:West Genesee at Camillus New York

Ronald LeDuc:Hi Everyone!

Ahmed Benkhalti:Hello from Newark DE

Keith Limitone:Hi. HS Math coach in The Bronx, NY

Christine Kowalishen:Hello from San Jose, CA

Mary Ellen Radjpaul:Hi: Queens, New York

Laura Stotski:Hello from Niagara Falls, Ontario

Paul Tabart:Hello

Dawn Rowley:Dawn Rowley, Clemson, SC

Hayley Conn:Hello from Bozeman, MT

Yasmine Julien:Hi, I am from Washiington, DC

Cathryn Danielczyk:Hello from the Jersey Shore!

Jenny Gemmill:Jenny from Palm Harbor, Fl- middle school teacher

Eileen Beatty:Eileen Beatty: greetings from Boise, Idaho

Cheryl Kerison:Cheryl Kerison: Good evening from Connecticut!

Kathy Butler:Good afternoon from Fayetteville, Arkansas

Lynn Killius:Hello! I am from Mechanicsville, MD.

Norma Borenstein-Gordon:Hello - Norma from MA

Lisa Heineman:Hello from Allentown, PA!

Maryum Mathew:Hello from Bronx, NY

Jill Peterson:Kia ora. I am joining in from Mount Maunganui New Zealand

Laura Potter:Hi from Bel Air, MD :)

Nancy Bicknell:greetings from Ontario, canada

George Reese:George Reese, Urbana, IL

Maria David:Hello from Surrey BC, CA

Christine Pacinello:I consider this a very important topic. I look forward to hearing more about it.

DeeDee Wiley:Hello! I'm from Ft. Leavenworth, KS

Trang Vu:Hi, I am from San Diego CA. Very happy to join you.

Christine Hopkinson:Greeley, CO :)

Jessica Dybsetter:Jessica Dybsetter, Porter, MN

Heidi Rossow:I'm from Phoenix/Scottsdale, Arizona

Sara Donaldson:Sara, Middletown RI

Catherine Schulte:Cincinnati, Ohio

John Walsh:Creston, Iowa

Mike Steele:It's a beautiful early evening here in Milwaukee, Wisconsin.

Denise Tager 2:New Hampshire

mirta humphreys:Hello, I am from North Carolina

Sunni Burns:hello from Virginia Beach

Ronald LeDuc:Has anyone done Max's Dog Food task yet?

Lois Boyd:Ballard Middle School special ed

Beena Menon:Hello from Cupertino, CA

Kati Wilska:Hello from Dallas, Texas

Torrey Kulow:Torrey Kulow: Portland, OR

Shelly Gibson:Hello everyone!

Arpi Lajinian:I'm from New Jersey

Robin Schwartz:Hi from NYC

Trang Vu:Is this recorded? If so, can we access it at a later time?

Shelly Gibson:from Gastonia, NC

Pamela Lucky:Severn, MD

Amanda Salveron:Baltimore, MD AACPS

Marla Hernandez:Hello from Miami

Alyssa Dixon 2:Hi! I'm from Ontario, Canada as well :)

Meg Byrd:Greensboro, Alabama

Rachel Cooper:Kansas City, MO

Diana Fesmire:Diana,Carlsbad NM

Rowena Persaud:Rowena Persaud: Hello all from Authors' Academy

Claudia Sever:Hello from Wellington, Florida

Georgia Austin:hello from CT

Tania Bumstead:From Ontario Can Waterloo

Sarah Freeman:Hello from Maine

christine beaulieu:Christine Beaulieu- Tolland, CT

Char Moffit:Hello from Reno Nevada!

Christopher Carlson:Hello from Elk Grove, CA

Susan Stanbery:lynchburg, Virginia

Joanna McPherson:Boston, MA

Linda Smith:Atlanta GA US

Jane Koestler:from Trumansburg, NY

Kari Kaehn:Hello from Minneapolis, MN

Francesca Sandberg:Arizona

Mary Ellen Huggins:Mary Ellen Huggins from La Conner Washington

Nicole Rigelman:Hello from Portland, OR

Karen Moorman:Fantastic resource to access

Molly Russell:Hi from Maine!

DesLey Plaisance:hello from Louisiana

Colleen Ryan:Hello from Keeseville, NY

Lisa Conte:Hi from West Chicago, IL

Laura Kaplan:Chicago, IL

Linda Loomis:Linda Loomis: Hi from Clarksburg, MD

Jan Szymaszek:Jan Szymaszek from Northampton, Massachusetts

Darcy Lewis:hello from sunny Huntington Beach, CA

Maria Guadalupe Ramirez-Silva:Hi, from Dallas, TX!

Jan Szymaszek:Lara Ramsey from Easthampton, Massachusetts

Jessica Dybsetter:I'm using a iPad— I can't access the dog food task. Is this an issue specific to this platform?

Norma Borenstein-Gordon:Hello fellow MA folks!

Laura Mah 3:from Seattle, WA

Robin Schwartz:Hi norma

Jennifer Lee:Jennifer Lee, Annapolis, MD

Norma Borenstein-Gordon:Hi Robin!

Noel Sciegaj:From Stephens City, VA

Tanya Garcia:Tanya Garcia, hi from Walkkill, NY

Linnea Lyding:University Education Department Chair - In education for 35+ years

Molly Russell:4th grade teacher.

Georgia Austin:yes, I'm old

Jacob Martens:23

Trang Vu:20+ years

Anu Kalra: 20+

Lybroan James:Hello!! I'm the original Lybroan James from Los Angeles, CA

Molly Russell:teaching for 24 years

Ahmed Benkhalti:Counting grad school?

Trang Vu:How do I submit the vote?

Linnea Lyding:over 35 years

Emma Gargroetzi:Hi all, Emma from Stanford University, writing from Albuquerque today!

Ronald LeDuc:1-5 years

Lisa Heineman:Less than one year here!

christine coppola:Hi, I'm Christine from Boston, I am a first grade teacher!

Tania Bumstead:Max's Dog food task is not downloading for me :(

Kim Quinn:20+ years

Kristin Keith:Tania, are you on a phone?

Tracy Frank:1

Ronald LeDuc:not sure

Shelley Hunter:3

Molly Sweeney:1

Christina Mitman:3

Shelly Gibson:2

Stacie Kyhn:2

Norma Borenstein-Gordon:1

Cezanne Ashby:3

MaryJean Rivera:2

christine coppola:3

Kim Quinn:2

Heidi Hall 2:3

Molly Russell:2

Susan Stanbery:1

Jan Szymaszek:1

Tania Bumstead:No I am not on a phone

Christine Hopkinson:3

Heather Flynn:1

Anu Kalra:don't know about them

Karen Moorman:2

Jodell Rutter:2

Patricia Katis:A little familiar

Susan Stanbery:we did a small book study two years ago :)

Lois Boyd:just took a 2-day class over it

Pamela Lucky:1

Ahmed Benkhalti:I wonder what we do once we fill out that certificate

Ronald LeDuc:maybe back in high school

Kathie Turkenburg:Kathie Turkenburg

Kevin Lopresto:hello from Florence, SC

Kristin Keith:Tania, maybe try in a differnt browser. I didn't have any issues here...

Laura Monahan:@ Tania - Here's the Dog Food Task: Dog food is sold in a 12 12 pound bag. My dog, Max, eats 34 of a pound of dog food every day. How many servings of dog food are in the bag?

Jacob Martens:I'm from Vancouver BC

Kristin Keith:Ahmed, you may be able to submit it for recert hours

Tania Bumstead:thank you

Tiffany Campbell:Are you able to type your name in the certificate or do you write it?

Laura Monahan:@Tania [Below the task, it also says: Draw a picture, construct a number line, or make a table to explain your solution.

Desley Plaisance:I am on an iPad. will handouts and certificates be available in a later email?

Kari Kaehn:Is there volume? I can't hear anything.

Comfort Akwaji-Anderson:Comfort Akwaji-Anderson from Iowa City, IA

Kristin Keith:Kari, yes. Try running audio set up wizard located in meeting drop down in upper left corner

Sunni Burns 2:problem is straight from the book if you hve read it....

Jennifer Tanko:Hi from NY - apologies for lateness, I had problems downloading Adobe Connect

Sunni Burns 2:around page 50

Lisa Heineman:Audio is cutting in and out for me

Kristin Keith:Lisa, you may have a connection issue

Rowena Persaud:hello Jennifer glad you're on

Theresa Land-Latta:HI Tanko!

Maryum Mathew:Hi everyone

Susan Davis:Hello

Amanda Salveron:will this recording be avaiable on NCTM site at a later date?

Theresa Land-Latta:Hey MM

Shawna Veit:Hello from Michigan

Kristin Keith:DesLey, you will recieve an email tomorrow with the url to the recording

Kristin Keith:Amanda, yes, tomorrow

Jennifer Adolphus:Hi 63 Crew!

Rowena Persaud:Glad for you too Ms. Latta

Natalia Hirniak::)

Amanda Salveron:Thanks, Krisitn

Lara Ramsey:Audio is cutting out on me, too!

Yasmine Julien:How much there is to start with

Lelia-allison Tsui:hi

Jan Szymaszek:Me, too!

Yasmine Julien:the amount that is being removed each day

Deena Avigdor:The fractions that the student must work with

Ellen Murphy:uncommon D's

Jennifer Tanko:What the student is being asked to produce

Robin Schwartz:The numbers have fractions perhaps can use easuer #s to understand the problem like a 12 piund bag andf the dog eats 2 pounds a day

Sheila Lettiere:Equal groups

Yasmine Julien:/having to use a representation to solve

Ronald LeDuc:15 and one quarter servings

Meg Byrd:Real-world context; student have to figure out which is the dividend and which is the divisor; interpret remainder; friendly fractional pieces to model for sense making

Sandhya Raman:the fractions specifying parts and whole

Tiffany CAmpbell:mixed fractions and common fractions

Jodell Rutter:Create a representation

Karen Moorman:Total, 12.5 divided by .75

Tania Bumstead:prior knowledge of fractions, representing on number line

Ellen Murphy:well scratch that. they certainly have common D's but in the problem they are presented with 2 different D

Patricia Katis:I taught this in my 6th grade class. I draw a model of the total and circle groups of $\frac{3}{4}$

Theresa Land-Latta:knowledge of fractions, division, multiplication and understanding the questions (servings)

monica sharma:repeated subtraction

Sara Donaldson:accessible denominators and a familiar context

Shelly Gibson:How many $\frac{3}{4}$ part units are there in 12 and $\frac{1}{2}$

Mary Violette:understand what is being asked, diagram the problem, calculate an answer

Rowena Persaud:Hi Talia another Math guru!

Jan Szymaszek:The question is about servings

Linda Smith:This task provides an opportunity to connect to Ratio concepts iand unit rate n Grade 6.

Pamela Lucky:total partioned into smaller pieces

Karen Moorman:good understanding of fractions

Ronald LeDuc:I used a number line

Ahmed Benkhalti:By 4th grade I'm pretty sure I was doing arithmetic with fractions

Jane Koestler:real world, meaningful numbers, different ways to solve

Lois Boyd:interpreting the left overs

Ahmed Benkhalti:A table would be great. One row for servings, one row for pounds

MaryJean Rivera:Understand how to use the two fractions

LaurieLee Wardyga:If students convert to decimals and divide is that still understanding the same concept?

Jan Szymaszek:Lost audio

Karen Moorman:Easy to do with a T-Table, continuing to add decimals .75

Ahmed Benkhalti:Dividing the decimals? Good luck!

Jan Szymaszek:Audio back!

MaryJean Rivera:LL, I would say yes, if that is the most effective strategy for that student.

Yasmine Julien:IT does not represent the standard Laurie

Georgia Austin:multiple ways to solve problem

Leticia Ortega:fraction strips may be helpful for visual learners

Arpi Lajinian:rewrite the quantities as parts of the same whole

Linda Smith:3/4 pound per day is a unit rate. Nice connection to multiplicative reasoning and iterations of a unit within a given amount.

monica sharma:repeated addition or subtraction is a good way to understand the concept of equal division

Robin Schwartz:cute thinking cap ;)

Jacob Martens:a wise person once told me "the best strategy for a student to use is one they understand". And of course we want students to learn multiple strategies and be strategic.

Robin Schwartz:do s's have access to calculators?

Christine Pacinello:It is important that students estimate first.

Kristin Keith:Audio is solid, with an occasional rubbing of mic. If you're having audio issues, you may have a connection issue. Options: 1. run audio setup wizard found under meeting in uppr left corner. 2. log out and log back in. 3. log in using a different browser.

Ahmed Benkhalti:Robin, I hope not

Robin Schwartz:bar models?

Jacob Martens:Yes -- estimate first -- thanks Christine:)

Susan Davis:no calculators for this

Rowena Persaud:Display different reasonable strategies to represent situation

Jan Szymaszek:Thanks

Linda Smith:Nice opportunity to use tape diagrams as iterations of the share of 3/4 pounds per day to total the 12.5 pounds per day.

Robin Schwartz:great esimation as is it more than 12 days or less than 12 days?

monica sharma:estimation is a good strategy

Karen Moorman:number line works very well

David Sheehy:Do you have any examples for upper level math? My classroom focus is precalculus

Jennifer Tanko: Use fraction tiles to build $\frac{3}{4}$ multiple times until they get to $12\frac{1}{2}$

Ronald LeDuc: estimate first

Ronald LeDuc: draw a number line

Jacob Martens: multiply both values by four and then find the equivalent ratio using whole numbers

Shatima McBrayer: I anticipate students will first attempt long division

Rachel Cooper: draw 12.5 pounds as quarter cups and circle groups of 3

Laura Mansfield: keep adding $\frac{3}{4}$ until they get to 12 and $\frac{1}{2}$

Sara Donaldson: picture

Robin Schwartz: $12\frac{1}{2} = \frac{25}{2} = \frac{50}{4}$ how many $\frac{3}{4}$ in $\frac{50}{4}$? $\frac{3}{4}$ $\frac{6}{4}$ $\frac{9}{4}$ $\frac{12}{4}$ etc

Ronald LeDuc: divide the number line in quarters

Jennifer Tanko: Use an array model to multiply.

Jacob Martens: use a table --

Mike Steele: David, the book has a range of content examples that bridge into high school. The practices play out largely the same way across grade levels.

Lisa Conte: estimate first

Linda Smith: I would use a tape diagram to show the number of $\frac{3}{4}$ pound servings within the 12.5 pounds.

Christine Pacinello: If he eats a pound a day it will last 12 days, so if he eats less than a pound, the answer is greater than 12.

Ronald LeDuc: put a dot on every three quarter division

Ronald LeDuc: count the dots

Christine Hopkinson: tape diagram - $12\frac{3}{4}$ and then combine the $\frac{1}{4}$ s, $\frac{1}{2}$ cup leftover

Mary Violette: estimate then bar diagram, followed by number line., then solve with calculations and discuss the meaning of the remainder.

Robin Schwartz: maybe can also use money to represent the quarters although many s's call them fourths rather than quarters

Shelley Hunter: $12\frac{1}{2}$ circles ... shade/color $\frac{3}{4}$ circles then group remaining quarters in groups of 3

Ronald LeDuc: 15 dots and 1 quarter

Jacob Martens: a student might only use the 3 and find $4\frac{1}{3}$ as their answer

Sandhya Raman: picture- how many $\frac{3}{4}$ are needed to make the closest to 12.. to start with. then see how the "balance" can fit in with the extra $\frac{1}{2}$

Kathy Butler: complex doubling

Karen Moorman: I used the same strategy as Ronald - a dot at every $\frac{3}{4}$

monica sharma: algebra

Jacob Martens: kathy: that's the first one I used:)

Theresa Land-Latta:multiplying whole numbers with a fraction (3/4)

Linda Smith:Great task selection Peg!

Jacob Martens:In BC this is used in gr 7/8

Maryum Mathew:4

Leticia Ortega:2

Molly Russell:2-3

Heather Flynn:2

Karen Moorman:4

Patricia Katis:between 2 and 3

Suzanne Colgren:2

Comfort Akwaji-Anderson:between 2-4

Jacob Martens:4

Anu Kalra:2and 5

Deena Avigdor:2-3

MaryJean Rivera:I'm a primary teacher and my first strategy was to draw a picture of the bags and separate them into fourths and then mark off the $\frac{3}{4}$

Laura Mansfield:the hardest part is finding tasks for HS. where can we find good tasks?

Jennifer Adolphus:2-3

LaurieLee Wardyga:MaryJean that is awesome idea. Going to use that with my 4th graders

Stacie Kyhn:I determined that two servings was 1.5. I then did skip counting by 1.5 until I got to twelve. That produced 8 groups of 1.5 which is 16 servings. Then determined $\frac{1}{2}$ is $\frac{2}{3}$ of $\frac{3}{4}$ by drawing a tape diagram. Ans: $16\frac{2}{3}$ servings.

Heidi Hall 2:Yes, MaryJean! I like that one.

Linda Smith:Tape diagram, number line, division algorithm, unit rate table

Marcel te Bokkel:could use groups of 3 instead of 1.5

Susan Davis:I love using common denominators to divide!

MaryJean Rivera:Thanks Heidi :)

Mike Steele:Laura, there's actually a lovely list (with links!) in the back of the book. I tend to go to places like Illustrative Mathematics or NCTM Illuminations out of the gate.

Joshua Moore:represent as 75 and 1250

Cheryl Kerison:a number line

Sunni Burns 2:pizza?

Jan Szymaszek:An interesting part is to figure out how much of a serving that leftover half of a pund would be.

Robin Schwartz:this is a great task for Math for Elem Ed

Sunni Burns 2:dog food

Kristin Keith:Thanks Mike!!

Patricia Katis:area models worked well for my class

Joshua Moore:number line

Leticia Ortega:To MJ Rivera, using the fraction strips, also helps the students as your drawing

Leticia Ortega:Sound is lost off and on

Leticia Ortega:No sound

Marcel te Bokkel:love the area model

Jessica Dybsetter:I used the double number line model

Laura Mansfield:hmm i have the older version of the book and dont see the list of tasks. thanks mike tho

Joshua Moore:double number line without skip counting

Ronald LeDuc:awesome!

Comfort Akwaji-Anderson:The double number line is interesting

Ronald LeDuc:love the double number line

MaryJean Rivera:Leticia, yes, I like the idea of fraction strips. Those would be great for the hands on learners. :)

Joshua Moore: $3/4 = 1$, $12.5 = x$

Anu Kalra: great strategies

Rowena Persaud:Fascinating strategies ...thanks

Sunni Burns 2:i loved the when multying by $4/3$ is because 1 pound is $4/3$ of a serving connection

Mike Steele:Laura, it's new in the second edition. Appendix A. (Good reason to update!)

Robin Schwartz:is this monintoring chart available online?

Laura Mansfield:and there are good HS tasks? not just middle school?

Maryum Mathew:63ers I relly like the added colume for two types of questions

Linda Smith:Just to clarify. So we don't "teach" these different strategies/representations before the lesson right?

Sunni Burns 2:look up online...lots of teachers have blogged some

Patricia Rogers:Monitoring Chart helps teacher consider questions to get students 'unstuck' if they are unsuccessful. thank you!

Mike Steele:Thre are! Most of the resources have tasks at multiple levels. I'd also recommend the tasks in the Taking Action 9-12 book from NCTM.

Susan Davis:The middle school taking action book is great also

Mike Steele:You're welcome!

Leticia Ortega:Questioning is essential. It guides students' thinking.

Laura Mansfield:awesome thank you i will check this out!

Jennifer Adolphus:The monitoring chart is great!

Laura Monahan:@Susan Davis - I agree!

Yasmine Julien:True

Shatima McBrayer :Great way to prepare DOK questions in advance

Anu Kalra:i love the monitoring chart

Jacob Martens:Mike: what's your twitter handle?

Lara Ramsey:modlling problems is really important.

Anu Kalra:can't wait to get hold of the book

Jessica Kubek:Created by teams in PLC?

Mike Steele:Jacob: @mdsteele47

Jacob Martens:Thanks:)

Leticia Ortega:Will the monitoring chart be available?

Trang Vu:The monitoring tool can be a great record to see students progress over time.

Robin Schwartz:do you keep the files monitoring tools from year to year on paper or electronically?

Elisa Waingort:What do the numbers represent?

Patricia Rogers:Tell me what the sets of 4 represent?

Kevin Lopresto:What do the numbers mean?

Jan Szymaszek:What do the numbers represent?

Sarah Potter:Can you tell me what your picture represents?

Keith Limitone:How is your answer to the question represented by the diagram?

Katy Scherr:What does each square/box represent?

Mike Steele:Keeping the monitoring tools from year to year is a great idea. I do it with my teacher prep classes and I add to my 'bank' of strategies every year. I sometimes also take pictures of their strategies to store with them.

Jennifer Tanko:I'd ask: What do the numbers represent?

Patricia Eberhardt:Tell me about your thinking

Yasmine Julien:How are splitting the 1/2?

Joseph Haughey:what do the squares represent?

Suzanne Colgren:Explain to me what does your chart mean?

Jessica Dybsetter:can you tell me what the squares represent?

Sunni Burns 2:why divide into four section

Sara Donaldson:how did you determine how many squares to make?

Mary Violette:What does the remainder mean?

Barbara Perez:What do the numbers in the boxes represent?

Christina Mitman:Can you tell me a bit about what you are doing with this strategy?

Patricia Katis:what does one square with the 4 smaller squares represent?

Sara Donaldson:What is your answer?

Karen Moorman:why did you choose to use this strategy ?

Patricia Rogers:what does the 1 by 3 rectangle mean (on the right)

Linda Loomis:Explain what the group of 3 on the right means.

Deena Avigdor:What do the charts represent? what does the number in each box mean?

Keith Limitone:What made you think to use this strategy?

Denise Tager 2:What does your drawing represent?

Rowena Persaud:Like anticipating chart.... monitoring chart is an important assessing tool

Shelley Hunter:the remainder $\frac{2}{3}$ is not modeled like the whole (squares)

Sandhya Raman:what are the three blocks on the side? OR so how many parts a

MaryJean Rivera:I would ask the student to explain the strategy and who he/she came up with it

Elisa Waingort:How did you decide which numbers to put in which square?

Linda Smith:This is the area model you showed earlier. I would want to know what the student is counting.

Molly Sweeney:Can you tell me about the boxes that don't have numbers in them?

Sara Donaldson:What do the blank squares represent

Christine Pacinello:What do the boxes represent. How did you use this model?

Robin Schwartz:the remainder is so interesting :)

Keith Limitone:What are the empty boxes?

Tiffany CAmpbell:Why did you choose to use squares? Why do they have different numbers in each section

Emma Gargroetzi:Where is the 12.5 lbs? Where are the $\frac{3}{4}$ lb servings?

Lisa Conte:what do the extra squares mean?

Leticia Ortega:The numbers represent the number of times the student represents the dog serving

Stacie Kyhn:What does each box represent? And the numbers?

Patricia Rogers:Is there another way you are thinking about this problem now?

Michelle Page:can you tell me why the numbers are different?

Joseph Haughey:Why do you repeat your numbers, like 2, 2, 2?

Patricia Katis:why did you number three smaller squares with the same number?

Kevin Lopresto:What about the rectangle on the right? What does it represent (the one without any numbers)

Traci Jackson:How does this connect to the table?

Jacob Martens:why did you put the same number into three boxes? why not one box?

Anita Simpson 2:how do you interpret and represent the remainder?

Ronald LeDuc:Is this a quarter model chart?

mirta humphreys:Why did you draw 12 squares?

Tania Bumstead:how is each serving represented?

Jan Szymaszek:Where can you see the servings? where can you see the 12 1/2 pounds? What result did you get?

Elisa Waingort:What is your answer to this problem and how did you arrive at your answer?

Molly Sweeney:Why are there three of each number?

Jacob Martens:where did the 2/3 come from ?

Sandhya Raman:what is your whole and what is the part here?

Mary Ellen Huggins:What do the boxes represent-both the one divided into fourths and the one divided into thirds?

Emma Gargroetzi:How would you explain this to a friend? Why is this a useful way to think about the problem?

Susan Davis:Why did you divide the squares into 4 sections?

Patricia Katis:how did you get 2/3 as your remainder?

Linda Smith:Why did the student divide each box into 4 equal parts? What are you counting?

Dr. Rebekah Lane:What do the blank squares represent?

Theresa Land-Latta:can you explain what you did? what are you trying to solve? did you check over your work? What does this drawing represent?

Robin Schwartz: $8 \frac{3}{4} = 6$ super way cool

Kevin Lopresto:Why did you think to split the squares into 4 pieces?

Joseph Haughey:Why don't these boxes at the end have numbers in them like the rest?

Jacob Martens:why is each square divided into four boxes?

Jenny Squire:How did you decide which numbers went in each square?

Elisa Waingort:How do you know your answer is correct?

Ann Marie Genco:Why not use color?

Jan Szymaszek:Where is your result in your representation?

Stacie Kyhn:Why are there a column of three blocks on the right?

Arpi Lajinian:Why did you use four boxes?

Laura Mansfield:what do the last two squares represent. how much of a serving are they?

Anu Kalra:4 is the denominator

Ronald LeDuc:well done

Patricia Rogers:What answer are you suggesting?

Emma Gargroetzi:Is there a way to check your work?

Comfort Akwaji-Anderson:Tell me about the squares and the numbers in them

Karen Moorman:I actually like this strategy and think a lot of my students may choose this strategy.

Minakshi Patel:some models display $1/2$'s while some display $2/3$, what was the reasoning behind this

Elisa Waingort:Why did you decide to create a picture to represent your thinking?

Beena Menon:Why does the $2/3$ make sense?

Claudia Sever:What are the numbers in the boxes representing?How much is leftover and how can it be written?

Christina Mitman:What do the boxes that don't have numbers in them represent?

Jessica Dybsetter:I notice each number is written more than once. Can you tell me about that?

Lois Boyd:can you make this into a table?

Rowena Persaud:I'm curious why you choose the 4 squares

Emma Gargroetzi:Could this be represented another way?

Shannah Smith:That's a critical distinction.

Mike Steele:To answer an earlier question, a blank version of the monitoring chart is available in the More4U resources that come with the book, on the NCTM website.

Jessica Dybsetter:I notice some additional boxes with no numbers. Let's talk about those. Where did they come from?

Stephanie Burton:Can you repeat the first important question? There was static as you said it

Ronald LeDuc:.66667?

Susan Davis:I think it was Can You Tell Me What You Did?

Lara Ramsey:when dividing by ANY number the remainder CAN be expressed as a fraction of the divisor- but it doesn't have to be,

Maryum Mathew:Can you tell me what you did?

Jennifer Adolphus:Can you tell me what you did?

Stephanie Burton:Thanks

Patricia Rogers:Good use of monitoring chart---to help me remember what ?? I asked, to whom!

Ellen Murphy:learned the algorithm previously

Sarah Potter:Sounds like that's the way the teacher led them.

Jessica Dybsetter:I teach in a small group or 1:1 setting with students flagged as being at academic risk. Do the books address alternate settings versus whole-class?

Pamela Lucky:Same teacher

Marcel te Bokkel:What they did yesterday....

Paul Wojcik:How long of a class period do you anticipate this task to take?

Jennifer Tanko:Are plugging in numbers

Elisa Waingort:They were taught one way to solve a problem previously and that's the only way they can think about this problem.

Ellen Murphy:prior instruction from other teachers focused only on area models

Jodell Rutter:They were given too much instruction

Yasmine Julien:That's the only model that the teacher has used to represent division of fractions

Patricia Katis:ask them to work in groups and compare how they got their answers.....

Ronald LeDuc:they were working cooperatively?

Karen Moorman:They are using a strategy that was previously taught.

Katy Long:That method was taught first and so all students are using it.

Sara Donaldson:that is what has been emphasized as "best"

Linda Loomis:Linda Loomis: The teacher probably modeled that approach for them, maybe in a warm-up.

DeeDee Wiley:they followed a procedure taught, not choosing between strategies

Catherine Schulte:that was the strategy being taught that day/previously

Robin Schwartz:how could you check ur work using another way?

Georgia Austin:good tutors (?) :)

Stacie Kyhn:Students will try and repeat what was seen before in class.

Christine Pacinello:This was not new material.

kristine benedict:They have seen the teacher only use these models

Christina Mitman:It's what they are all familiar with using.

Pamela Lucky:Little variety of strategies explored in previous years

Hayley Conn:They have routinely memorized the algorithm that was recently taught

Michelle Page:too much direct teaching...not enough discussion

Ann Marie Genco:Students don't really understand.

MaryJean Rivera:Perhaps that was the only strategy that was taught to them.

Robin Schwartz:thanks Georgia :)

Jessica Kubek:lack of conceptual understanding only procedural

Yasmine Julien:Students don't have other methods of representing division of fractions

Heidi Rossow:had been previously taught

mirta humphreys:because I presented similar problems before and we used the same method..drill

Sarah Freeman:algorithm was taught first

Joseph Haughey:They learned these strategies previously, and it was the "go-to" strategy used in the class.

Mary Ellen Radjpaul:The task was not challenging enough for them

Jacob Martens:it was the method they had all been shown -- or the only strategy they know?

Claudia Sever:Students think there is only one correct answer and only one method to get it.

Patricia Katis:do the other on the board and show them there is more than one way to get the correct answer

Tiffany Campbell:They are using the teachers way of thinking rather than their own??? Maybe?

Elisa Waingort:They haven't heard or seen other ways to solve a similar problem.

Linda Smith:The teacher must have only surfaced or "taught" these two representations as ways to think about fraction division.

Deena Avigdor:They've seen the problem or this type of problem before

Mike Steele:Jessica, the books do talk about small-group and whole-group work. It doesn't address 1:1 settings, although I think some of the ideas that are about to come up might help you think about how to adapt and scale.

Ashley Roth:saw others doing it that way and copied

Katy Long:They may not be able to use that same method to solve a similar but different problem

Comfort Akwaji-Anderson:That strategy is the only one student know or have been taught

Shatima McBrayer :The way they were taught previously by same teacher. comfortable strategy

Kevin Lopresto:If used algo, I'd want to see if they can represent the problem visually? What do the numbers in the algo relate to in the problem.

Pamela Lucky:teacher modeled

kristine benedict:It is the strategy they have used most successfully

Jessica Dybsetter:It shows a very surface level of understanding.

Beena Menon:Students not thinking on their own

Jenny Squire:Havent't had much exposure to doing open ended tasks

Leticia Ortega:can you explain why your strategy works?

Meridith Goldstein:lesson was too procedural

Susan Davis:They just covered the procedural way of dividing - no reason to figure out why it works conceptually

Christopher Carlson:Directions did not provide options of various representations

Robin Schwartz:or from a parent older sibling

Christine Hopkinson:Do you give the task before they have all the tools to solve or after?? Those are different purposes.

Leticia Ortega:4

Tanya Garcia:They have gotten used to seeing math as a set of procedures

Rowena Persaud:SS. are comfortable or familiar with those strategies

Maryum Mathew:too much teacher guidance

Laura Vittum:They don't have flexibility and have to rely on the strategies taught

Suzanne Colgren:4

Patricia Katis:2

Hayley Conn:Tanya, I agree!

Shannah Smith:Yes, so many people see mathematics as just a set of rules/algorithms.

Kevin Lopresto:If use model, is there a more efficient way, without having to draw out all the boxes? Is there a pattern in the model that would allow us to be more efficient for a similar problem.

Shatima McBrayer :yes, teachers can be bias to stratgies

Jessica Dybsetter:Thanks, Mike Steele. I'm really excited about this book!

Jacob Martens:This reminds me of the OGAPLLC work on continua of strategies

Meg Byrd:E and C...and D

Pamela Lucky:E

Karen Moorman:Can we present several strategies ?

Lybroan James:E and D

Ronald LeDuc:E, D

Anu Kalra:c is how i worked it

Tiffany CAmpbell:E D

Jennifer Tanko:F, D, A

christine coppola:E

Pamela Lucky:or D

MaryJean Rivera:E and D

Catherine Schulte:c, e, d

Patricia Katis:a, b, e,

Shannah Smith:E F, and D

Minakshi Patel:E and D

Laura Mansfield:E, D, A

Ellen Murphy:E and D

christine beaulieu:E and D

Comfort Akwaji-Anderson:D, E and A

Shatima McBrayer :E, D, A

Jessica Dybsetter:I would choose the non-algorithmic ones, such as E, C, or D

Shelley Hunter:F, D then A

Suzanne Colgren:E, C, F

Shannah Smith:I would like to see student F's reasoning.

Jen Hindo:E, C then D

Georgia Austin:I would present 3 different solutions for different learners. Concrete, pictorial, abstract

Deena Avigdor:A C and E

Katy Long:EFD

Christina Mitman:E & C. I'm having trouble seeing D clearly

Tanya Garcia:C,E,F

Ashley Roth:C, E, F

Karen Moorman:e and d

Sara Donaldson:E, D, B

Sandhya Raman:E then C

Meridith Goldstein:E, F, D, C then A and B

Ronald LeDuc:and A

Patricia Rogers:E, then D, then F

Molly Sweeney:ecd

Jenny Squire:Students need plenty of time and exposure in order to be able to think creatively in maths.

monica sharma:F and d....visual representation of the problem and solution progression

Ashley Roth:and D

Denise Tager 2:E, D

kristine benedict:E, F, D, B

Elisa Waingort:E, D.

Sarah Freeman:E and D

Christine Pacinello:F and c

Claudia Sever:I would pick E, or D or F. They might be helpful to explain how to express the remainder.

Minakshi Patel:it is also important to know the reasoning before we ask them to share

Keith Limitone:C, E, then ask how those relate to A

Lisa Conte:E

Jacob Martens:E, F, D, C

Dominique Patrick:e,c,and a

Laura Vittum:E, C, D, A

Johanna Gibson:B, E D. F

Rowena Persaud:Concrete to abstract

Molly Russell:e,d,c

Dr. Rebekah Lane:B. F. and D

Caroline Heslop:e,c,d

Ashley Roth:D, E, and F make it visual

Shelley Hunter:important to have students see the math common to all strategies

Yasmine Julien:C, F, E

Sunni Burns 2:E D C B

Georgia Austin:e, d, f

Cheryl Kerison:All of them

Susan Davis:E, D, and A

MegCarolyn Remesz:E then D then A

Marcel te Bokkel:d,e,b

Patricia Rogers:I like Keith's idea of asking students to connect to the algorithm.

Hayley Conn:I would like to hear from A, discussing why this strategy works and how it connects to the problem

Linda Smith:A, E, and C

Karen Moorman:c, d, e

Leticia Ortega:C, E, F, and D in that order. If time allows, B

Linda Loomis:B, C, and E - C gets at the issue with the remainder, E is a great visual of the correct answer, and B addresses the standard algorithm - why does it work?

Jessica Dybsetter:I would address the algorithm, but probably not have the student present. Try to show the connections between the different methods, and how the algorithm matches.

Shannah Smith:It depends on whether or not you've established a culture in the classroom that helps students feel comfortable with mistakes.

Stacie Kyhn:E, C

Theresa Land-Latta:cde

John Walsh:all?

Christina Mitman:I also like the idea of connecting them to the algorithm

Georgia Austin:b would be last

Jacob Martens:thinking F (repeated addition), then E which is similar using area model, then D which shows it with a number line, and then C which has a multiplicative strategy

mirta humphreys:c,d,e,f,

Linda Smith:E first, C next, and then A

Patricia Rogers:Critical issue is to remember the GOALS

Susan Davis:I picked these!!! Yay!

Marcel te Bokkel:the sound reason is what matters....

Elisa Waingort:I didn't select A, at least for the first discussion, because it's the traditional algorithm and I'm not sure that the kids who may be having troubling with dividing would get it and they might get more confused.

Jenny Squire:A is a good second step, once they can do the visual rep.

MaryJean Rivera:I agree, Jenny\

Jacob Martens:I didn't select A but now I see why one would

Patricia Rogers:Ahh...I just saw how the boxes solution connected the common denominator one vicually! Thank you!

Noel Sciegaj:E D A

Hayley Conn:That explanation about selecting was beautiful! It made this practice so much clearer.

Jennifer Tanko:E, D, A

Molly Sweeney:eda

Laura Mansfield:E, D, A

Jacob Martens:E D A

Sara Donaldson:E, D, A

Arpi Lajinian:EDA

Meridith Goldstein:E, D, A

Ashley Roth:EDA

Lisa Heineman:E, D, A

Elisa Waingort:E, D, A

Natalia Hirniak:e,d,a

Dominique Patrick:e,d,a

Pamela Lucky:E, D, A

DeeDee Wiley:E,D,then A

Sunni Burns 2:EDA

Shelley Hunter:eda

Christopher Carlson:EDA

Laura Vittum:EDA

Keith Limitone:EDA

Deena Avigdor:e d a

Jenny Squire:E, D, A

Catherine Schulte:e, d, a
Shannah Smith:D, E, A
Christina Mitman:E, D, A
Patricia Katis:e, d, a
MegCarolyn Remesz:e,d,a
Joseph Haughey:EDA
MaryJean Rivera:E, D, and A last
Nicole Rigelman:EAD
Cathryn Danielczyk 2:EDA
christine beaulieu:E,D,A
Caroline Heslop:e,d,a
Karen Moorman:e, d, a
Jessica Dybsetter:D, E, A
Jessica Kubek:D E A
Molly Russell:Edna
Ann Marie Genco:E,D,A
Heidi Rossow:EDA
Suzanne Colgren:e,d,a
Jill Peterson:EDA
Rachel Cooper:E D A
sarah groskleg:EDA
Christine Hopkinson: A D E - c/P/a
christine coppola:E D A
Tiffany CAmpbell:eda
Sarah Potter:DEA
Patricia Rogers:D then E then A
Jen Hindo:eda
Lisa Conte:E, D, A
Marty Beck:e, d,a
Jane Koestler:E D A
Nancy Bicknell:Ed a
Melissa Springer:EDA
Tanya Garcia:E, D, A

John Walsh:e,d,a
Joeanna McPherson:EDA
Anita Simpson 2:dea
Jenny Gemmill:E, D, A
Kati Wilska:Esa
Cheryl Kerison:e d a
Denise Tager 2:D, E, A
Kim Ellis:DEA
Lybroan James:EDA
Minakshi Patel:D, E, A
Claudia Sever:E, D, A
monica sharma:DEA
Shannon Pasvogel:E, D, A
Torrey Kulow:dea
Ronald LeDuc:start with D, then E and finally A
Georgia Austin:e, d,, a
Lynn Killius:E,D,A
Sarah Freeman:E D A
Yasmine Julien:E, A, D
Laura Stotski 2:eda
Ellen Murphy:EAD
mirta humphreys:DEA
Susan Davis:D, E, A b/c A explains the pictures in E
Maryum Mathew:DEA
Leticia Ortega:E,D,A
Linda Loomis:E, D, A - concrete to abstract
Judy Cameron:e d a
Comfort Akwaji-Anderson:D, E,A
Marcel te Bokkel:d,e,a
Linnea Lyding:EDA
Shatima McBrayer :E,D,A
Lois Boyd:E A D
kristine benedict:E, then D, then A. Begin with visuals and end with abstract

Shelly Gibson:EDA

Theresa Land-Latta:d e a

Kathy Butler:EDA

Robin Schwartz:A E D

Lelia-allison Tsui:EDA

Katy Scherr:d,e,then a

Cheryl Kerison:d, e a

Kevin Lopresto:eda, although if they are more familiar with number line model, then dea.

Joshua Moore:eda

Jennifer Adolphus:E, D, A

Paul Wojcik:E,D,A

Lori Martin 2:eda

Emma Gargroetzi:EDA because they become increasingly symbolic. Number lines are a more advanced way of thinking about fractions than area models. A connects nicely as a symbolic representation of D

Dr. Rebekah Lane:E, A, and D

Jacob Martens:Linda: like the concrete to abstract reference (Concreteness fade:)

Johanna Gibson:E,D,A

Hayley Conn:Which model are the students more familiar with, the number line or the area model. Do those first, then move to A.

Christine Pacinello:E, D,A

Yasmine Julien:The double number line looks a little confusing

Leticia Ortega:After the visual representation, the algorithm will make sense as students make a visual connection to A

Jessica Dybsetter:I think ending with the algorithmic model is important, because it emphasizes the connection between the algorithm and the deeper understanding of what the problem is asking us to figure out.

Joshua Moore:I would then use an example of double number line to show why the algorithm works

Georgia Austin:In thinking about learners who aren't ready for strategy A, as facilitators, we can encourage our children about efficiency. All strategies can help solve the problem. solution A is most efficient

Linda Smith:Yep - E, D, then A. So sequencing is about making connections between the different representations/strategies right?

Jacob Martens:Agreed Jessica

MaryJean Rivera:Yes, Jessica!

Anu Kalra:i agree too

Lois Boyd:I put A after E because students can easily count that there are 50 fourths in the model

Susan Davis:I agree that E is easier to understand, but A is very easy to see in E

Linda Smith:This is so beautiful - we can see the $50/4$ in the student work.

Rowena Persaud:Totally agree E, D, A... shows progression

monica sharma:sequencing tasks helps to progress towards the solution

Karen Moorman:Is it ok to present the work the next day ?

Emma Gargroetzi:I was thinking the same thing - I think yes!

Hayley Conn:I like that question Karen, and thanks for answering it right away!

Lisa Heineman:I can see continuing from A to the standard algorithm and seeing why it works!

Heidi Hall 2:Having students explain someone else's model is a great idea.

Patricia Rogers:Isn't using common denominators a 'standard' algorithm

Stacie Kyhn:Will there be a discount on the 5 Practices book for today's participants?

Susan Davis:I always thought multiplying by the reciprocal was the traditional algorithm

Jenny Squire:Very important to get them to explain the link between the algorithms and visuals in their own words.

Lisa Heineman:Sorry, I meant invert and multiply.

Kristin Keith:Stacie, only discount on this book is member discount

Marcel te Bokkel:me too Susan!

Linda Smith:Now I can see the full circle of starting with deep anticipation and being prepared with questions and connections!

Mike Steele:Jenny, and it's important for us as teachers to scaffold that and make sure we rise above sharing just being "show and tell" and towards being an opportunity for ALL students to learn something new during the whole-class discussion.

Stacie Kyhn:Thanks.

Patricia Rogers:I learned common denominators first, then invert and multiply

Patricia Rogers:multiply

Jenny Squire:Absolutely Mike.

Lisa Heineman:I never learned common denominators! :)

Rowena Persaud:Thanks for providing high level tasks!

Susan Davis:I learned common denominators after 25 years of teaching...how sad!

Hayley Conn:I have done a deep study of the first edition as part of a college class, but now I might need the second edition too!

Linda Smith:That's OK Lisa. I had a student teach me the common denominator method to divide fractions in 1980.

Jacob Martens:Okay -- need to get the second edition.

Maryum Mathew:Persaud we have a few copies

Jennifer Tanko:Nice!

Karen Moorman:Can you comment on how this connects to Number Talks

Shannon Pasvogel:If I have the first edition can you just access the new components added? or is there a discount?

Norma Borenstein-Gordon:Will there be an update to the science book pending?

monica sharma:how do you cater to children of varying ability

Linda Smith:Thank you so much Peg and other authors for your continued service to our research base for best instructional practices!

Shannon Pasvogel:Principles to Action and Taking Action series are awesome book studies as well!

Lara Ramsey:E D A

Sara Donaldson:Does the science version connect to STEM inquiry?

Christine Hopkinson:This was wonderful - thank you .

Caroline Heslop:Thank you for all the info!

Rowena Persaud:Glad to know we have the resources my dear coach

Norma Borenstein-Gordon:Thanks

Ronald LeDuc:Are there Pythagorean examples?

Laura Mansfield:what happens when no one does it correctly?

Kathy Felt:Thank you!

Elisa Waingort:Thank you for this webinar! The book looks fantastic based on what I've learned here. I will be looking into it for myself and my school.

Mike Steele:Sara, I've used the science book with science teachers, and it connects nicely to inquiry and to the 5E model.

Sandhya Raman:thank you. so much.

Denise Tager 2:Thank you!

Patricia Katis:no, than you..this was really helpful!

Susan Davis:Where do I go to watch the recording after this webinar?

Kati Wilska:Thank you!

Elisa Waingort:Have a great evening everyone!

monica sharma:Thank you for the webnair

Patricia Katis:thank

Dominique Patrick:Thank you!

Char Moffit:Thank you!

Patricia Rogers:Thank you Peg and team! Such good work!

MaryJean Rivera:Will these slides be available?

Sara Donaldson:Thank you Mike

Ronald LeDuc:thank you!

Ann Marie Genco:pLEASE SAY MORE ABOUT ZERO PRACTICE

Lara Ramsey:Thank you!

Muriel Clarke 2:How does this book fit with Principles to Actions?

Shelley Hunter:On the myNCTM it would be great if teachers shared their high level tasks they used and their experiences

Keith Limitone:thank you!

Traci Jackson:Thank you! I can't wait to use what I learned.

Lisa Heineman:This is my first NCTM webinar and it was amazing!

Karen Moorman:Can you comment on how this connects to Number Talks, or does it ?

Deena Avigdor:Do we fill in the certificate ourselves?

Jenny Squire:Thanks!

Emma Gargroetzi:How/when should pre-service teachers learn these practices?

Jan Szymaszek:Thank you!

Lelia-allison Tsui:Thank you so much for the wonderful webinar

Comfort Akwaji-Anderson:Thanks

Joseph Haughey:Thank you! I appreciate you.

Maryum Mathew:Thank you

Suzanne Colgren:thank you!

Jacob Martens:Thank you Peg. This has prompted me to change the order of my summer reading list.

DeeDee Wiley:Thank you, this was so helpful!!

Hayley Conn:Karen's question, about how this connects to number talks?

Jodell Rutter:What happens when no one does it correctly?

Mike Steele:Happy to help!

Marcel te Bokkel:Thankyou!

Shatima McBrayer :Thank you, do you have other sample lessons

Leticia Ortega:Is this presentation available on NCTM?

Arpi Lajinian:Thank you!

Anu Kalra:thank you so much

Rachel Cooper:Do you need to conference with all students?

Maryum Mathew:good question Jodell

Marla Hernandez:Thank you!

Diana Fesmire:Just finished the new edition! It is great! Can't wait to use it this fall!

christine beaulieu:Thank you. Looking forward to getting a copy of the book

Yasmine Julien:It seems easier to to iplement at elem level. How about HS

Catherine Schulte:Thanks Peg! I ordered the book yesterday and am looking forward to reading!

DesLey Plaisance:great presentation

Jennifer Adolphus:Thank you! This was helpful

Marcel te Bokkel:may we please download the slides?

Jacob Martens:Mike: Taking Action 9-12 has been moved to book #2

Johanna Gibson:Thank you. The presentation was very interesting.

Tanya Garcia:Great webinar. Thank you. Definitely buying the book!

Anthony Piparo:Thank you

Theresa Land-Latta:Thank you! Teachers enjoy your summer.

Jennifer Jones:great presentation. ty

Ellen Murphy:where is the NCTM conference this year?

Laura Vittum:Thank you!

Katy Scherr:Are there professional development suggestions to guide teachers in this process?

Traci Jackson:San Diego!

Jacob Martens:San Diego

Minakshi Patel:Thank you

Jacob Martens:Anyone going to NCSM?

Kevin Lopresto:Great seminar. Like the new material.

Linda Smith:Yes - varying ability is addressed by the the task and tools we have available for students to access the mathematics.

Dee Crescitelli:Great tasks give students lots of ways to access the mathematics!

Diana Fesmire:I have been using the 1st edition ideas with my HS Pre-AP classes with great success. Can't wait to apply the ideas in the new eition.

Debra Corcoran:Thank you.

Jacob Martens:Went last year -- was awesome for coaches & mentors

MaryJean Rivera:This has been great. I have really enjoyed the discussions.

Susan Davis:Where can I go to re-watch this webinar?

Jessica Bolz :What about the group that did strategy A and then they're finished way before other groups?

Jodell Rutter:How do you get HS students who have disengaged to even try the tasks?

Pamela Lucky:Do you think that there is enough change in the editions to purchase the new?

Jennifer Jones:low floor, high ceiling task implementation

Patricia Rogers:YES! Come and enjoy beautiful San Diego for NCSM and NCTM in April 2019!

Jacob Martens:Can we access this webinar?

DeeDee Wiley:Im going to NCSM in Denver

Claudia Sever:Where can we find high ceiling tasks?

Jacob Martens:Want to share with teachers I am coaching:)

Diana Fesmire:Pamela Lucky - Yes, definitely!!

Shelly Gibson:@DeeDee when are you going to Denver?

Linda Smith:Ask the strategy A group to prove their solution using a different representation

Paul Wojcik:Thank you great information in a short amount of time

Jessica Bolz :Thanks

Mike Steele:Jodell, for me with high school it's about persistence and holding students accountable for trying. Having questions ready for students who struggle to get started helps. I'd also recommend Middleton & Jansen's book, Motivation Matters. I used it with a high school group with which I work.

DeeDee Wiley:@Shelly July 30-Aug1

Natalia Hirniak:This webinar has been very helpful, thank you!

Barbara Niederhoffer:How do you make the student groups?

Shelly Gibson:@DeeDee Me too!!

Jacob Martens:Yes Linda: " Ask students "Try show using a different way?"

Deena Avigdor:Just saw a great question: how do you form groups

DeeDee Wiley:Shelly, awesome!

Amanda Salveron:I have both books and it is worth an upgrade

Jacob Martens:Anyone familiar with Peter Liljedahl's Thinking Classroom work and visibly random grouping?

Pamela Lucky:Thanks

Jessica Kubek:Thank you -

MaryJean Rivera:At the primary level, I tell the students that I am going to challenge them to come up with another strategy. They love the challenge

DeeDee Wiley:What grade band are you, Shelly?

Linda Loomis:I have both books. I have found the additional examples and voices from the field to be really helpful. I also love the electronic resources that are now available.

Lisa Heineman:I can come up with reasons for doing mixed or by level for creating groups.

Comfort Akwaji-Anderson:where is the certificate?

Linda Smith:Conceptual understanding is grounded in students being able to show multiple solution strategies/representations.

Marcel te Bokkel:Liljedahl's work fits this perfectly

Denise Smith:I'm going to NCSM in Denver too

Shelly Gibson:@DeeDee Middle School

Sandhya Raman:the certificate comes by email?

Shelly Gibson:Yay @Denise!

Christopher Carlson:Click Download File(s) above

mirta humphreys:on top

DesLey Plaisance:could you include the certificate in the email?

Cheryl Kerison:Thank you.

Rowena Persaud:Very insightful session! Good night all...looking forward to utilize 5 Practices.

Anu Kalra:thank you i really learned heaps would like to buy the book

Linda Smith:Thank you NCTM!

DeeDee Wiley:Shelly and Denise I am 3-5

Anu Kalra:is it available as a ebook

Comfort Akwaji-Anderson:Found the certificate . Thanks

Karen Moorman:Thank you so much for all the information !!!

Tiffany CAmpbell:THank you. It was very helpful. I learned a lot!

Lisa Conte:Thank you!

Lori Martin 2:love it!

Mike Steele:High school folks, tomorrow night's webinar will be great for you!

Jacob Martens:Thanks mike

Hayley Conn:Thank you!!!

Jessica Dybsetter:Thank you so much. I am so excited to use better math practices in my classroom this year!

Laura Mansfield:thank you!

Norma Borenstein-Gordon:That book is great for all not only HS folks to read - I think it will help ES MS Ts too

Colleen Ryan:Thank you!

Claudia Sever:Thanks!

Shelley Hunter:Love the webinars!

Comfort Akwaji-Anderson:Thanks Kristin:)

Tiffany CAmpbell:Thank you again! I look forward to reading the book.

Lisa Heineman:Now I need to go sign up for more webinars!

Lisa Cash:thank you

Susan Davis:Thanks!

christine coppola:Thank you!

Lori Martin:thank you!!!

Stephanie Forbes:where do you get the certificate?

Laura Monahan:Thank you so much Peg, Kristin, and Mike!

Linnea Lyding:Thank you!

DeeDee Wiley:thank you!

Deena Avigdor:Thank you

Christine Pacinello:I REALLY enjoyed it!

Shelly Gibson:Bye Everyone!

Stephanie Burton:Thank you

Jennifer Tanko:Thank you!

Christopher Carlson:Thank you!

Torrey Kulow:Thank you!

Dr. Rebekah Lane:Thank You so much!

Judy Cameron:Thank you Bring on the webinars!!

Patricia Eberhardt:thanks

Georgia Austin:Thanks so much!

Shatima McBrayer :Thanks

Shannon Pasvogel:Thanks for the sharing.

Catherine Schulte:thanks!

Jacob Martens:Awesome and thanks:)

Claudia Sever:The certificate is at the top of the chat area

Ronald LeDuc:thank you

Jill Peterson:Thanks

kristine benedict:Thank you!

Latrenda Knighten:Thank You!

Leticia Ortega:Thank you