

Kristin Keith:We will begin at 7 pm

Yaw Asante :hey

Emmanuel RIVIERE:Ok

Fanta Jacqueline Keita-William:ok I got confused with the time. Thanks

Emmanuel RIVIERE:What tome is it?

Fanta Jacqueline Keita-William:6:40 in New Jersey

Jill Gough:Hey, y'all. We will start at 7:00 Eastern or 6:00 Central

Nancy Barron:I am logged in.

Emmanuel RIVIERE:2.41 in réunion Isle Indian ocean

Kristin Keith:It's 6:40 EDT, so we will begin in 20 minutes

Yaw Asante :iam hearing music

James Johnson:I am logged in.

Emmanuel RIVIERE:I m here

Kristin Keith:where is everyone from?

Kristin Keith:Reston, Virginia here

Emmanuel RIVIERE:Réunion Islande Indian ocean

Regina Fernandez-Siejack:New Jersey here

Wendy Groot:Massachusetts

Larry Elzo:Skiatook Oklahoma

Jean Lambiase:Jean Lambiase is here

Nancy Barron:Texas

Jennifer Wemssen:New York

Nancy Barron:Anyone going to the Annual Conference in DC in April?

Kristin Keith:I'll be there :)

Tammy Jones:Tennessee

Mandeep Kaur:India

Minakshi Patel:Ontario, Canada

Tammy Jones:Love the y'all Jill! :)

Tammy Jones:@Mandeep What part of India?

KARLA DELEON:Pennsylvania

Evelyn Kemp:Texas

Monica Roland:Georgia

Karen Puffer:Indianapolis!

Malia Hite:Greetings from Utah!

Jennifer:I'm joining tonight from Black Mountain, NC.

Mandeep Kaur:New Delhi

Samuel Tsegai:5:52pm Chicago time

Tammy Jones:Great! I was there a few years ago with part of a math delegation...visited several schools of all types around your city and in other states

Leena Malik:Hello from Ohio, USA

Courtney Heikkila:Joining from Charlotte, North Carolina

Rachel Secord:joining from Florida

Vicki Hamdorf:Hello from Iowa

Jennifer Lutz:fairfax, VA

Kendall Maurer:hello from Ohio

Tammy Jones:We were in Delhi, Rajasthan - Jaipur, Agra - a great country!

Laura Williams:Pittsburgh, PA

Vicki Pritko:Vicki Pritko - Hi! I'm from Apex, North Carolina

Leena Malik:@ Mandeep.....I am also originally from New Delhi...Tilak Nagar...

Rosana Villalobos:El Paso Texas

Hannah Kavscek:Hi! I'm joining from Pittsburgh, PA.

Brandon Sturgill:Bristol, Va

Rebecca Graf:Pilot Mountain, NC

Emmanuel RIVIERE:Joining from Réunion Island Indian ocean Black night here at 3.am

Denise Rawding:Hi Everyone from Morris Plains, NJ

Carol Brown:Hello from Los Alamos, NM

Andrew Wardyn:3 a.m.? That's dedication!

Andrew Wardyn:Only 7 p.m. here in South Carolina

Andrew Wardyn::)

Cindy Wilkins:Hello, from Mississippi

Emmanuel RIVIERE:đ?řčđ?řčđ?řčđ?řčđ?

Tammy Jones:@Emmanuel - That is dedication!

Mandeep Kaur:Thanks Jones

Leena Malik:It is so good to Meet Math Teachers from all over the world. :)

Becky Holden:Becky Holden Ooltewah, TN

Mandeep Kaur:it's 4:30 in India

Amber Jorgenson:Hello from Alberta Canada

Minakshi Patel:AM right Mandeep

Nancy Barron:as much as I detest technology some days, this is an amazing experience to be able to talk with teachers from so many diverse cultures both home and abroad

Fanta Jacqueline Keita-William:from New Jersey

Mandeep Kaur:yes am

Tammy Jones:@Becky - hello from Nashville, TN

Marvin Rozemberg:marvin rozemberg from north chicago

Becky Holden:Hi tammy

Becky Holden:Tammy

Michael Adeyin:Hello Michael Adeyin form NJ

Mandeep Kaur 2:4:30 Am

Jess Weber:Hello from Ontario Canada!

Sherry Everding:Hello from St. Louis

Ruth Blouch:Hello from south NJ

Yaw Asante :what can do to get certificate

DeAnn Huinker:Hello from Milwaukee

Leena Malik:Click on the top right to download it.

Malia Hite:@Sherry Everding Where do you teach? I just moved from South City and taught at SLPS

Tina Hill:Hello from Tri-Cities TN

Yaw Asante :new york

Michael Adeyin:I hope you will review the PD certificate procedures again at the end

Tammy Jones:@Tina - long time no see! :)

Sherry Everding:@ Malia Hite I am at Cor Jesu Academy

Tifani Jefferis:Hi from Mississippi

Sarah Freeman:Hi from Maine!

Tina Hill:@Tammy -- we have to stop meeting like this!

Stacey Miller:Stacey from Ohio

Yaw Asante :thanks

Cheryl Lowery:Cheryl from Tipton county tn 30 years

Robin Conti:Secondary Math Specialist in Indiana!

Stacey Hatchett:Stacey Hatchett - Instructional coach/mathematics teacher Waukegan, IL

Lossie Hunter:Lossie Hunter from Halifax county

Mary Rollick:hi from Ohio

Laura Hendry:Good evening from South Florida

Leena Malik:You can full screen it to see the arrow

Ella Ilie>Hello from Virginia!

Joseph Espinosa:Hi. I'm From Los Angeles

Marvin Rozemberg:can not hear voices

Kristin Keith:Marvin, run audio set up wizard under meeting in upper left corner

Stacy Thibodeaux>Hello from Lafayette Louisiana

Kristin Keith:If that doesn't work, you may need to log out and back in

Stephanie Killen:Hi, from Washington State

Heather Schoenfeld>Hello from DFW area Texas

Robin Midiri:What do you mean by "effect size for self-reported..."???

Marvin Rozemberg 2:restarted the whole thing, thank you

Jennifer:You can learn more about effect sizes here: <https://visible-learning.org/nvd3/visualize/hattie-ranking-interactive-2009-2011-2015.html>

Jennifer:And here: <https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/>

Thach-Thao Phan:Do these levels correspond to rubric levels?

Heather Schoenfeld:I don't see why you couldn't just be clear of the expectations on rubric.

Brenda Goudreau:Brenda Chester NH

Robin Midiri:thanks

Jennifer:<https://docs.google.com/document/d/1lBaaKOcF6jfQ6J5EmpgoW5JRWBtQZf4gkK3iV0ZnsX0/edit>

Mandeep Kaur:64 cherries

Jennifer:Tweet your work using the hashtag #NCTMlive

Mandeep Kaur:#64cherries # NCTMlive

Emmanuel RIVIERE:64

Ella Ilie:#64#NCTMlive

Brenda Goudreau:64

Vicki Pritko:I got 64 cherries also. #NCTMlive

Cheryl Lowery:64

Dena Kennedy:64 cherries

Michael Adeyin:i got 64 too

Michael Adeyin:ratio problem

James Johnson:64

Ruth Blouch:64

Mark Goldstein:64

Kim Zeydel: $b + 2b + 24b + 8b = 28$ , blueberries = 8, Thus, cherries = 64

Dena Kennedy: $b + 8b + 2b + 24b = 280$

Anne Browdy:64

Mary Clarke:i think B=8,R=16, G=192, C=64

Tifani Jefferis:I got the same, Mary Clarke.

Carol Brown:64

Sherry Johnson:64

Monica Roland:There are 64 cherries in the fruit salad.

Anne Browdy:I don't hear any music.

Rachel Secord:64

Mary Clarke:used multiple layers of substitution

Maria Grech:64 cherries

Esther Winikoff: $b + 2b + 3(4(2b)) + 4(2b) = 280$

Michael Adeyin:B=8 R=16, C=64, G=192

Dena Kennedy: $r = 2b$ ;  $g = 3c = 3(8b) = 24b$ ;  $c = 4r = 4(2b) = 8b$

Kristin Keith:Anne, could you hear voices earlier?

Samuel Tsegai: $b=8$ ,  $r=16$ ,  $c=64$ ,  $g=192$

Anne Browdy:yes

Amber Jorgenson:upload a picture somehow?

Breanna Hathcock:8 16 64 192

Kathleen Hybl:64 cherries

Kristin Keith:ok. I'm not sure why you don't hear music. Let me know if you have issues hearing voices when we start back up in a minute or two

Azucena Marilag:can't hear anything

Bayan Hakmi:64

Cheryl Lowery:can't hear anything

Regina Fernandez-Siejack:64

Brandon Sturgill:64

Samuel Tsegai: $5r(b) + r + 12r(g) + 4r(c) = 280$ , i.e.,  $c = 64$

Kristin Keith:should be hearing talking

Mary James:64

Amber Jorgenson:units: b is 1 unit, r is 2, c is 8, g is 24, then  $280/35$  makes 8 fruits per unit - answer is 64

Jean Lambiase 2:Jean Lambiase 64 cherries

Tina Hill:What is the twitter hashtag?

Jennifer:#NCTMlive

Tina Hill:Thank you!

Anne Browdy:I can hear talking.

Becky Holden:I love seeing this antiipation

Jennifer:<https://twitter.com/search?f=tweets&vertical=default&q=%23NCTMlive&src=typd>

Jennifer:(A direct link to the hashtag)

Samuel Tsegai:What grade level is this particular problems?

Jennifer:Grade 6

Brenda Goudreau:The sound keeps going off for me for some reason.. Is it just me?

Kristin Keith:Brenda, you may need to log out and back in. may be a bad connection

Jennifer:Here's a direct link to the task:<https://www.illustrativemathematics.org/content-standards/tasks/1032>

Brenda Goudreau:Thank you!

Jill Gough:Here's the link: @RobertKaplinsky's Open Middle task: Biggest Product  
[www.openmiddle.com/biggest-product/](http://www.openmiddle.com/biggest-product/).

Tifani Jefferis:Thanks for that link.

Mandeep Kaur: $(9+6)(8+7) = 225$

Mandeep Kaur:biggest product

Mary Clarke:I think  $225 (9+6)(8+7)$

Azucena Marilag: $(9+6)(7+8) = 225$  biggest product

Sarah Freeman: $(9+6)(8+7)=225$  biggest product

Brenda Goudreau:225 biggest product

Samuel Tsegai: $(6+9)(7+8)=225$

Mandeep Kaur:smallest would bve  $(1+3)(2+4)= 24$

Bayan Hakmi:24

Jason Kearney: $(1+2)(3+4) = 21$

Bayan Hakmi:and 225

Vicki Hamdorf: $(9+6) (7 + 8) = 225$

Sarah Freeman: $(1+2)(3+4)=21$  smallest product

Cheryl Lowery:25

Angeleta Clay: $(1+2)(3+4)=21$  and  $(9+8)(7+6)=221$

James Johnson:21 and 225

Mandeep Kaur:sorry  $(1+2)(3+4)=21$

Vicki Pritko:biggest 225 smallest 21

Michael Adeyin:smallest is 21

Cheryl Lowery:sorry meant 225

Michael Adeyin:and the biggest is 225

Brenda Goudreau:21 is the smallest product

Tifani Jefferis:Now that I'm seeing the numbers, I realize I misunderstood the task. I was trying answers like  $(921+74)(83+65)!$

Joseph Espinosa:Was that a dog barking?

Ella Ilie:225; 21

Brandon Sturgill:225 and 21

Nancy Barron:(Biggest =  $(9+8)(7+6) = 936$

Sherry Johnson:smallest 21, largest is a square ( 225 )

Mary Clarke:good pup! he did he math correctly in my book

Heather Schoenfeld:now my dogs are going crazy lol

Amber Jorgenson:weird to think about whether the numbers inside each bracket set should be closer or further away from the other number

Minakshi Patel: $(6+9)(7+8)= (15)(15)=225$  Biggest

Nancy Barron:Smallest  $(1+2)(3+4)= 21$

Samuel Tsegai: $(1+2)(3+4)=21$  min

Rebecca Graf:225 largest and 20 smallest

Andrew Wardyn:Sounded like it. Sometimes I threaten to let my dog grade my kids' papers when they are struggling

Marvin Rozemberg 2:(9+6)(8+7)=225 biggest

Ruth Blouch:smallest is 21, largest is 225

Kim Zeydel:Biggest  $(987+12)(65+43) = 107892$

Becky Holden:(1+2) (3+4) = 21

Amber Jorgenson:trial and error, have to think why

Malia Hite:(n + (n-2)) ((n-1) + (n-3)) = (2n-3)(2n-3)

Dena Kennedy:To get the biggest product manipulate the 4 greatest numbers and then to get the smallest product manipulate the 4 smallest numbers as a starting point.

Kimberly Morrow-Leong:Interesting that  $(9+7)(8+6) = 224$ , one less than  $15^2$ .

Andrew Wardyn:Can we get some clarification on the rules for this task? Can we only place one value in each blank or create composites?

Michael Adeyin:yes

Kimberly Morrow-Leong:Difference of Two Squares

Amber Jorgenson:like why  $15 \times 15$  is bigger than  $14 \times 16$

Marvin Rozemberg 2:(1+2)(3+4) =21 smallest

Michael Adeyin:you can only use one number

Malia Hite:One digit in each blank

Mark Goldstein:  $(1=2)(3+4)$  and  $(8+7)((6+9)$

Michael Adeyin:combination of 6789 will result to the largest number

Tammy Jones:Some great questions and observations - capture those for journal prompts! Authentic writing...

Leena Malik:A square will have the largest area...so  $15 \times 15$  is bigger than  $14 \times 16$

Becky Holden:(9+6) (8+7) = 225

Vicki Hamdorf:Area of a square is larger than a rectangle

Mary James:(9+6)(7+8) = 225

Kim Zeydel:Why only one number in each box?

Amber Jorgenson:perimetre to area ratio

Tifani Jefferis:I would love to see student work that shows this kind of experimentation.

Jennifer:Kim - you bring up what could be a nice variation of the task.



Amber Jorgenson:I was thinking of sum combinations like  $6 + 8$  is 14 and  $7 + 9$  is 16

Tifani Jefferis:SHOUT OUT TO ME! :)

Tifani Jefferis:ha ha ha

Tifani Jefferis:If we want students to be vulnerable, we need to be vulnerable as well.

Amber Jorgenson:yes!

Nancy Barron:I also goofed in my answer - I multiplied  $9 \times 8$  rather than adding them. DUH!

Joseph Espinosa:The task used is very important for eliciting student thinking. CGI is an excellent approach in teaching math for eliciting student thinking and adjusting instruction for individual students and the class as a whole.

Jennifer:The open middle task: <http://www.openmiddle.com/biggest-product/>

Jennifer:Learn more about Talking Points from Elizabeth's blogpost:

<http://cheesemonkeysf.blogspot.com/2014/07/tmc14-gwwg-talking-points-activity.html>

Jennifer:<https://docs.google.com/document/d/1lBaaKOcF6jfQ6J5EmpgoW5JRWBtQZf4gkK3iV0ZnsX0/edit>

Vicki Pritko:I learned to ask myself "What are some other methods to solve the problem?"

Amber Jorgenson:I learned to pay attention to - "How would I actually get students to be risk takers?"

Nancy Barron:would you share the link to the google doc again?

Laura Hendry:I learned to ask myself if I am paying attention to the prerequisite skills?

Tina Hill:My reflection: Multiple representations is imperative. When planning my lesson, have I adhered to the LL2LU?

Michael Adeyin:I will learn to ask myself /reflect about my daily activities

Dena Kennedy:I learned to ask myself can my students feel comfortable explaining why or how they got the answer.

James Johnson:I learned to pay attention to grouping skills

Jennifer Lutz 2:I learned to pay attention to being very specific in I can statements

Courtney Heikkila:I learned to pay attention to how my students may first solve the problem or think about it prior to me teaching it to try and see connections that are made or how I can meet them.

Becky Holden:I learned to pay attention to the learning progressions so I can think of the work as a process and journey.

Andrew Wardyn:A new mathematical connection for me was the idea of graphing values for the product example.

Maria Grech:I learned to pay attention to peer discussions to discover how well students are learning the concepts.

Laura Hendry:Am I anticipating the roadblocks to learning?

Mary Clarke:I learned to make sure directions are clear from a student point of view

Mary James:Looks for ways for my to achieve their learning goals

Demetria Ellis 2:I learned to have students keep persevering to see if get different answers

Malia Hite:I'm thinking about how to encourage my teachers to intentionally teach the mathematical practices.

Monica Roland:I learned how to pay attention to how I introduce tasks to students. Sometimes I place limits on their responses by telling them what I expect to see in their responses as it relates to content topics. I will be more mindful about task introduction.

Vicki Pritko:How do you sign up for that webinar?

Dena Kennedy:Excellent webinar!

James Johnson:Thank You!

Cheryl Lowery:I have learned there's usually more than one way to solve a problem

Jean Lambiase 2: Thank you!!!

Heather Schoenfeld:<https://www.nctm.org/Conferences-and-Professional-Development/Webinars-and-Webcasts/>

Jeranzo Smith:Is this session recorded to view at a later time?

Mary James:I also learned the importance of productive struggle and to be patient with my students

Sasa Jovic:More of asking & listening; less of talking & writing (on board).

Evelyn Kemp:Excellent webinar! Thank you

Brenda Goudreau:Thank you!

Bayan Hakmi:I learned to pay more attention to mathematical operations, and to look for more solutions that can satisfy the given problem.

Amber Jorgenson:Thank you very much - this was an interesting webinar.

Tammy Jones:Thanks!

Samuel Tsegai:Thank you,

Laura Hendry:Thanks!

Fanta Jacqueline Keita-William:Thanks

Tina Hill:Thank you!

Cheryl Lowery:thanks

Mandeep Kaur:THnak you so much

Hannah Kavscek:Thank you!!

Tifani Jefferis:Thank you. This was a great use of time!

Breanna Hathcock:thanks!

Hoda Fouad:Thank you

Mandeep Kaur:Keep doing mor eof such webinars

Lossie Hunter:Thanks

DeAnn Huinker:Thank you!

Monica Roland:Thanks so much for a very interactive session!

Tammy Jones:Join me in Facing a Letter Marriott Marquis ballroom Salon 9 - 10 Workshop 3:15 - 4:30 pm at NCTM! See you there!

Andrew Wardyn:@Monica Roland, I love letting my kids "grapple" with new concepts before formal instruction, however, in the most recent years, my students have gotten much less intrinsically motivated to try and problem solve and simply wait to be told how to do the new skill. Thoughts on how to encourage critical thinking and problem solving, especially in freshmen?

Yaw Asante :how to get the certificate

Becky Holden:Thank you Jill and Jennifer!

Robin Midiri:Thank you! Happy learning and teaching everyone!

Ruth Blouch:Thank you!

Minakshi Patel:Thank you

Vicki Pritko:Thank you!

Kaylee Murray:Thank you!

Jeronzo Smith:Thank you!

Wendy Groot:Thank you

Leena Malik:Thank You!!!! You too!!

Shannon Pasvogel:Thank for the great conversations and resources allowing us to network.

Hoda Fouad:How to find the certificate?

Demetria Ellis 2:Thank you!

Ella Ilie:thank you!

Mary James:Thank you