

08:45:17 From Cedric French :
<https://www.dropbox.com/s/w7br2cmputhowoe/HACT%202020%20Connecting%20pc%20to%20cal.docx?dl=0>

08:48:29 From Pauline Cheng : Good morning. Cedric, besides AP Calculus courses, what other courses do you teach now?

08:50:12 From Pauline Cheng : Denise, how you handle testing in UH?

08:52:51 From Rayna Glasser : Good morning. Am I late???

08:53:09 From Cedric French : not started yet

08:53:22 From Rayna Glasser : Thank you :)

08:56:31 From Toshiba Beasley : Good morning everyone. My name is Toshiba Beasley. I teach at MacArthur High School. My mic is muted because I am servicing my car

08:57:23 From Pam : Good morning from Pam Benne in Tulsa, OK

08:57:36 From ettab : good morning

08:57:40 From Amber M. Smith : Good Morning!

08:57:58 From Julie Valverde : Good morning! First year ABER from Dallas, TX. Love this opportunity!! Thank you!

08:58:20 From Ashley Reynoso : Good morning from Fort Worth, TX!

08:58:57 From Rayna Glasser : I love sitting in my bed still n my pajamas to do PD :p

08:59:26 From mhunt : Or both - in-person, while streaming?

08:59:45 From Holly Rohrbach : Good morning from Carmel Indiana

09:00:10 From DMDAUVÉ : Good morning from St Charles, MO just outside of St Louis

09:00:29 From Julie Valverde : Same!

09:00:50 From ggssg : Thank you for hosting these online sessions!

09:01:21 From DAKOTA DORAN : Good Morning, my name is Dakota. I actually took a couple of math courses at UH with Professor Morgan, Professor Almus, and Professor West.

09:01:24 From DMDAUVÉ : yes thank you! Especially when I heard that Cedric was hosting today because I was at one of his APSIs 3 summers ago

09:01:50 From DAKOTA DORAN : Linear, Calculus, and Survey?

09:06:15 From SHERRY REDDINGTON : I use the quizzes. It is Great! Thank You

09:11:03 From Dana White : Can you put the dropbox link in the Chat?

09:12:30 From Jeff Morgan :
<https://www.dropbox.com/s/w7br2cmputhowoe/HACT%202020%20Connecting%20pc%20to%20cal.docx?dl=0>

09:17:30 From Jeff Morgan : I love how Cedric shares EVERYTHING!

09:18:16 From Theresa Horvath-Host private : Yes!!

09:20:09 From Susie Carter : how do I get access to this information?

09:20:49 From Laura Bookout : . $r=4 \cos(\theta)+4 \sin(\theta)$ is an equation with polar coordinates.
a) Sketch a graph.
b) Convert the equation to one with rectangular coordinates. Write in standard form.
c) Find the exact polar and rectangular points $(r,\theta)=(f(\pi/6),\pi/6)$ and $(r,\theta)=(f(2\pi/3),2\pi/3)$.
d) Find the distance between the two points $(r,\theta)=(f(\pi/6),\pi/6)$ and $(r,\theta)=(f(2\pi/3),2\pi/3)$.

<https://www.dropbox.com/s/w7br2cmputhowoe/HACT%202020%20Connecting%20pc%20to%20cal.docx?dl=0>

09:21:08 From Laura Bookout : ignore that

09:21:56 From Jeff Morgan : Cedric French DropBox:
<https://www.dropbox.com/s/w7br2cmputhowoe/HACT%202020%20Connecting%20pc%20to%20cal.docx?dl=0>

09:22:01 From Deborah Hansberry : Which folder was this in?

09:22:04 From SHERRY REDDINGTON : abs value

09:22:55 From Irina : Which folder was this in?

09:23:23 From Alyona Atsalis : SYMKC

09:23:27 From Theresa Horvath-Host private : SYMKC folder

09:23:51 From Jeff Morgan : SYMKC stands for "Stuff You Must Know Cold"

09:25:11 From Jeff Morgan : Code: 4878856

09:29:15 From Susie Carter : I do

09:29:24 From Julie Valverde : Would you be willing to share your teacher code?

09:29:26 From Susie Carter : I have the plus

09:30:06 From DMDAUVÉ : My first year using DM and I'm loving the Calc problems

09:30:43 From Susie Carter : I love it. 117961

09:31:27 From Julie Valverde : @Susie Thank you for sharing!

09:32:18 From Amber M. Smith to Jeff Morgan(Privately) : What was the link to the UH AP Quiz site? (since it didn't get recorded)

09:32:23 From Julie Valverde : I am happy to share mine if anyone wants it, but this is my first year teaching AB so its not well built yet...

09:33:39 From Susie Carter : I teach PreCalc and Math 4. I use it a lot. I like that you can pick specific questions and the extra videos for help for my students.

09:34:26 From DANA HILL : What is math 4?

09:36:10 From Susie Carter : I'm in North Carolina. We have integrated Math. :(so this is a 4th math choice for students that are not prepared for PreCalc.

09:36:26 From DANA HILL : thx

09:36:53 From DANA HILL : We call that Advanced Algebra :)

09:38:37 From Ann Guillerman : I have been using Cognero and Microsoft Forms. Have only used Delta math on occasion for lessons. I will explore this more.

09:39:13 From DANA HILL : I've begun using it for all my homeworks (unless what I need isn't there, like compositions of trig functions).

09:39:26 From DANA HILL : I haven't tried a quiz or test yet.

09:40:08 From Amber M. Smith : Cypress Fairbanks is blessed to have many options for post-Alg2! Adv Alg, Coll Alg, AQR, Precal!

09:41:23 From Pauline Cheng : You also can copy a made assignment for other periods or modify it for an assessment, so you do not have to create every assignment or quiz from scratch.

09:42:02 From Pauline Cheng : From Tools

09:43:19 From Pauline Cheng : There is a training video in the YouTube from the Founder of Delta Math

09:43:21 From Amber M. Smith : Is this your bank or one that is built into Delta Math?

09:43:36 From Alyona Atsalis : How do you create classes? How do you add students?

09:43:47 From Pauline Cheng : Use GoGuardian if you have from your district.

09:44:08 From Amber M. Smith : What is GoGuardian?

09:44:12 From Alyona Atsalis : We use Schoology

09:44:29 From SaraHopeMc : You give students your teacher code and they join themselves. It takes two minutes.

09:44:39 From Alyona Atsalis : Thank you!

09:44:50 From SaraHopeMc : They choose the period they have you!

09:45:20 From Barb Kline : GoGuardian is great but only works for us for the kids that are using school district chromebooks

09:45:44 From Alyona Atsalis : Are the question bank for Calculus AP level?

09:46:32 From Amber M. Smith : Are the questions built in or did you build them? Can you add your own questions?

09:46:48 From DMDAUVÉ : So good! I'm very impressed. My kids are so far ahead of previous years with their knowledge and abilities than in past years

09:47:07 From DANA HILL : Amber, you can build you own questions

09:47:20 From Pauline Cheng : You also can type keywords to allow the app to search the materials.

09:51:48 From DANA HILL : are they prebuilt?

09:52:37 From DANA HILL : or more like DM in that you build quizzes

09:53:11 From SHERRY REDDINGTON : sometimes I like to use it for Extra credit points on the test, or sometimes assessments

09:53:55 From Pauline Cheng : UH also use algorithm to build their questions.

10:03:41 From DAKOTA DORAN : I do

10:03:43 From Pauline Cheng : We used to have them

10:03:44 From DAKOTA DORAN : its great!!!

10:04:04 From Pauline Cheng : They are very hands-on discovery learning

10:04:16 From DAKOTA DORAN : Very well thought out resources!!

10:05:24 From Rayna Glasser : Does anybody use Math XL?

10:05:47 From Melani James : I do

10:06:10 From DMDAUVÉ : Does anyone know if anyone does something like this for Pre-AP Alg 2?

10:06:35 From Melani James : Not Free response, most short answer/multiple choice

10:06:52 From Rayna Glasser : This is my first year teaching AP Calculus and that is what I have been using... Do you like it Melanie?

10:07:35 From Melani James : I do not use Math XL for AP Calc, mostly for Precal and College Algebra, but not all the time.

10:07:43 From Pauline Cheng : I love Mark's materials, because it helps my low-performing students

10:08:23 From Rayna Glasser : Okay. Thank you. I have 4 preps this year so I am still trying to figure everything out...

10:08:44 From DANA HILL : I hate it when the question is does the inverse exist, of course it does,, every relation has an inverse. The question is "is the inverse a function"

10:09:02 From DMDAUVÉ : I didn't realize Mark Sparks's problems included everything from Alg 1 to PreCal until you pulled it up

10:09:04 From Scott Berger : This Mark Sparks resource is for Alg 2 and Alg 1 and Precal

10:10:27 From Adam Casey : I use MathXL. I like that it corresponds directly with my course textbook. The supports like "solve for me" and "ask my instructor" seem to help my students. And the ask my instructor lets me do some one-on-one tutoring even when we can't connect simultaneously.

10:11:21 From moleres : Is there something like this for Honors Geometry....

10:11:25 From Linda Conklan Bibb : I've had this resource for a few years and have forgotten about it! Will get it back out!

10:11:49 From DANA HILL : We use MathXL for calculus, but not precal. :(

10:11:58 From Deborah Hansberry : I love this!

10:12:21 From Melani James : Yes, I do use it sometimes for a Review with key for but sometimes depends on textbook you are accessing, I like. Sometimes the format the answer has some quirks with the algorithm that the answer has to be written in.

10:13:25 From moleres : Because one is using function notation, does that not imply the inverse function?

10:13:30 From Rayna Glasser : Thank you guys! I have AP Cal, PAP Pre-Cal, Pre-Cal, and College Algebra... I am just trying to find the best resources for my kiddos that will also help simplify my life this year...

10:13:59 From Theresa Horvath-Host private : love this!!

10:14:03 From Scott Berger : In Brick & Mortar classes, we use 'trade and grade' to teach students how to investigate their Free Response performance - Is there a way to do that with Distance Learning classrooms (in an automated way) ??

10:14:11 From Rayna Glasser : This resource will help too I think

10:14:46 From Amber M. Smith : Scott, first thought:

10:15:14 From Amber M. Smith : 1. Have students fill out a form with a link to their google doc file. Make sure they set it to share with whoever has the link.

10:15:30 From Diane Hudson : For "trade and grade", have you got access to a discussion board? If the students can post their response, others can "comment" and grade that way.

10:15:41 From Amber M. Smith : 2. Then copy the spreadsheet and shift the links slightly so everyone gets a different link.

10:16:00 From DMDAUVÉ : The Facebook group is an AMAZING resource!

10:16:13 From Scott Berger : Hm we don't have google docs - we use Microsoft OneDrives and itsLearning is our LMS

10:16:30 From Amber M. Smith : Calc teachers facebook? Specifically deltamath or all calc?

10:16:36 From DANA HILL : Facebook AP Cal group:
<https://www.facebook.com/groups/757156494357029>

10:16:45 From Scott Berger : Could use Desmos Activity, or OneNote Collaborative space, or use Microsoft Whiteboard

10:16:47 From DMDAUVÉ : Sorry, the Calc FB group in particular

10:17:52 From ettab : is there some other group that is not Facebook?

10:19:35 From DANA HILL : I don't know of one. Facebook has SO many users, if you don't do facebook, it might be worth it to create an account just for the resources/groups

10:19:36 From Pauline Cheng : Continue reading. It seems like some will be shared publicly and some will only shared with AP Calc teachers.

10:20:58 From Theresa Horvath-Host private : The AP Teacher Community through College Board if you're looking for non-Facebook Calculus group support, but it's not as active as the Facebook group

10:21:20 From DANA HILL : zoom in some?

10:21:24 From Amber M. Smith : There's a discussion board area on AP College Board for AP Calc, but it isn't very active.

10:22:41 From DANA HILL : I'm only like a day ahead of my kids... I can't do related rates yet. :p

10:23:00 From Diane Hudson : Hang in there Dana! We were all there once.

10:23:01 From DANA HILL : (first year AB teacher)

10:23:06 From DANA HILL : thanks

10:24:01 From Ann Guillerman : With you Dana. First year!

10:24:33 From Julie Valverde : Me as well Dana! And even these vets have been in our shoes. :)

10:24:38 From Scott Berger : "At what moments is the total number of fish in the lake neither increasing nor decreasing?"

10:24:51 From Alyona Atsalis : There are soo many resources. It is overwhelming.

10:24:53 From Scott Berger : using graphing calculator to match E to L

10:25:16 From Holly Rohrbach : Graph both rates. Where are they equal? Find intersection.

10:25:24 From Scott Berger : "What is the long-term prognosis for the lake – are the fish eventually going to overflow or disappear?"

10:25:26 From Deborah Hansberry : Could you ask them to find $f(0) - f(5)$ and total?

10:25:47 From Holly Rohrbach : What is there period of the rate fish enter?

10:25:50 From DANA HILL : Alyona, pick one and work with it for a little while. Then add in (or discard and move on). Don't try them all at once.

10:26:13 From DANA HILL : One person's "favorite, must have" will be another "no way" resource.

10:26:25 From Alyona Atsalis : Whish one to start with?

10:26:42 From Alyona Atsalis : *Which

10:26:53 From DANA HILL : DM, Mark Sparks,

10:27:21 From DANA HILL : I also used Flippedmath.com

10:27:34 From DANA HILL : use*

10:27:38 From Scott Berger : DeltaMath is good for assigning some practice without worrying that the kids won't be able to figure it out - most of the skills can be self-taught from the sample problems and hints and "show solution" button

10:28:11 From DANA HILL : it really depends on if you want notes, practice, test, ets

10:28:13 From DANA HILL : etc

10:28:35 From Alyona Atsalis : Thank you!

10:28:37 From Pauline Cheng : Dana, don't worry. At least you are one day ahead of your students and College Board nowadays has provided daily videos and other supporting materials. I had to learn in the early morning and teach the lesson at 10 AM in my 1st year, plus I did not have entire summer to prepare for the two levels of courses and I did not know about the Facebook Calculus group. My first APSI instructor, D Ross became my mentor, and I had to ask her for help through email almost every week. So I know you will do well, Dana.

10:28:37 From DANA HILL : was that a question?

10:28:44 From Scott Berger : If you're willing to use the try Sample Problem on a DeltaMath skill, 95% of those skills work seamlessly - my students had a few problems with problems that required plotting points/drawing graphs (had trackpad instead of mouse) eg

10:29:12 From DANA HILL : Dana Hill

10:29:15 From A Brewer : Amy Brewer

10:29:24 From Melani James : Melani James

10:29:28 From Ashley Reynoso : Ashley Reynoso, Arlington Heights High School, Fort Worth, TX, ashley.reynoso@fwisd.org

10:29:31 From DMDAUVE : Dena Dauve

10:29:31 From DANA HILL : Dana Hill... Cypress Park High School ... dana.hill@cfisd.net

10:29:33 From A Brewer : Amy Brewer, Cy-Fair HS, amy.brewer@cfisd.net

10:29:37 From Julie Valverde : Julie Valverde, juvalverde@dallasisd.org, Seagoville High School

10:29:46 From Amber M. Smith : Amber Smith, Amber.Smith@cfisd.net, ISC @ CFISD

10:29:49 From SaraHopeMc : Sara McLain, Spring High School, saram@springisd.org

10:29:49 From Reynold D'Souza : Reynold D'Souza, Strake Jesuit, rdsouza@strakejesuit.org

10:29:52 From JENNIFER NICHOLSON : Jennifer Nicholson, North Side High School, Ft Worth ISD, Jennifer.Nicholson@fwisd.org

10:29:53 From DMDAUVE : Dena Dauve, Francis Howell Central High School, dena.dauve@fhdschools.org

10:29:53 From Seth Berggren : Seth Berggren, sberggren@dallasisd.org, CityLab High School (Dallas ISD)

10:29:54 From Holly Rohrbach : Holly Rohrbach, Highlands Latin School, hrohrbach@indylatinschool.org

10:29:54 From karen miller : karen3.miller@cfisd.net Cy-Fair HS

10:29:54 From Pauline Cheng : Pauline Cheng, Wylie East High School, pauline.cheng@wylieisd.net

10:29:58 From Melani James : Melani James, Brazosport Christian School, mjames@1bcs.org

10:29:59 From moleres : Mary Moleres, Eldorado High School, moleres@aps.edu

10:30:02 From Ryan Peterson : Ryan Peterson, ryan.peterson@fwisd.org, Benbrook Middle-High School Fort Worth ISD

10:30:03 From Scott Berger : Scott Berger, Clear Lake High School, sberger@ccisd.net, (also doing Math Club / Mu Alpha Theta)

10:30:03 From Rayna Glasser : Rayna Glasser Dunbar High School (Fort Worth ISD) Rayna.glasser@fwisd.org

10:30:04 From Gretchel Robles : Gretchel Robles, Spring High School, groble1@springisd.org

10:30:06 From Brandon Barrier : Brandon Barrier, Dallas IDEA HS, jbarrier@dallasisd.org

10:30:06 From DAKOTA DORAN : Dakota Doran, Cypress Ridge HS, dakota.doran@cfisd.net

10:30:07 From Isaac Towne : Isaac Towne, Paschal High School, isaac.towne@fwisd.org

10:30:07 From Barb Kline : Barb Kline....Amsterdam High School, bkline@gasd.org

10:30:08 From Toshiba Beasley : Toshiba Beasley, MacArthur High School, Aldine ISD, tqbeasley@aldineisd.org

10:30:10 From SHERRY REDDINGTON : sherry reddington, cy-fair high school, sherry.reddington@cfisd.net

10:30:14 From almus :
https://forms.office.com/Pages/ResponsePage.aspx?id=vboLF_CikEytSw6PDwxCWdeOxMBeQoNGh173JmXeQAVUNEYxVIEwQIVGVTM0TDdOVktUVk00WldGRy4u

10:30:16 From Jim Dang : Jim Dang, Kingwood Park HS vdang@humbleisd.net

10:30:18 From Ann Guillerman : Ann Guillerman, Xavier Academy, Ann.guillerman@xavieracademy.org

10:30:23 From Dan Fredrickson : Dan Fredrickson, Cypress Ranch HS, Daniel.Fredrickson@cfisd.net

10:30:23 From almus : I just sent the form

10:30:27 From ettab : Etta Brewerton, Cassata Catholic High School, ebrewerton@cassatahs.org

10:30:40 From Jeff Morgan :
https://forms.office.com/Pages/ResponsePage.aspx?id=vboLF_CikEytSw6PDwxCWdeOxMBeQoNGh173JmXeQAVUNEYxVIEwQIVGVTM0TDdOVktUVk00WldGRy4u

10:31:16 From DANA HILL : blame the artist/painter?

10:31:45 From DMDAUVE : I always wish I had a "History of Math" class for my undergrad

10:31:59 From DANA HILL : This is the first time I'm seeing Jeff Morgan's face. (I took two of his courses and my master's project)

10:32:02 From Julie Valverde : Are there any teachers that would be willing to share their teacher code for Delta Math? There are several of us that are new and have not yet built up our quiz, test, practice banks. If so, we'd be very appreciative.

10:32:50 From Amber M. Smith : @DMDDauve, Yes me too. It was only Masters when I was at A&M.

10:33:14 From Amber M. Smith : Dr Morgan was my advisor!

10:33:53 From almus : We have 48 responses so far; please don't forget to fill in the form to get your certificate.

10:34:15 From Amber M. Smith : We all have!

10:34:32 From DMDAUVE : @Amber Smith - that would be amazing. My masters is in Ed Leadership so I've never had a history class. Most of what I've learned I've picked up from my APSIs and then researched on my own

10:35:08 From almus :
https://forms.office.com/Pages/ResponsePage.aspx?id=vboLF_CikEytSw6PDwxCWdeOxMBeQoNGh173JmXeQAVUNEYxVIEwQIVGVMT0TDdOVktUVk00WldGRy4u

10:35:10 From DAKOTA DORAN : Dr. Morgan, I heard your voice once in the library and fan girded. Because you were my favorite professor that semester but the class was online.

10:35:22 From DANA HILL : ut oh! Jeff froze!!

10:35:41 From James West : I still do that!

10:35:54 From DAKOTA DORAN : He was my professor too

10:35:56 From Alyona Atsalis : Alyona Atsalis, Health Careers High School, San Antonio TX, alyona.atsalis@nisd.net

10:36:11 From DAKOTA DORAN : He ate quizzes!

10:36:17 From DANA HILL : Virge Cornious said his daughter told her "you're not really famous if only math teacher know you". LOL

10:36:28 From DANA HILL : her*

10:36:50 From DAKOTA DORAN : An ICON!

10:37:06 From DANA HILL : dumb brits

10:37:13 From DANA HILL : LOL

10:37:14 From DAKOTA DORAN : It was the accent!

10:37:33 From Alyona Atsalis : I did

10:38:46 From Rayna Glasser : Will that be 3 hours as well?

10:38:55 From Jeff Morgan : If you typed your name, school and email in the chat, then also please input it in our online form at
https://forms.office.com/Pages/ResponsePage.aspx?id=vboLF_CikEytSw6PDwxCWdeOxMBeQoNGh173JmXeQAVUNEYxVIEwQIVGVMT0TDdOVktUVk00WldGRy4u

10:39:02 From Jim Dang : yes. 3 hours Rayna

10:39:18 From Ann Guillerman : I love math history!!!

10:40:23 From DANA HILL : Election has been called for Biden according to applenews

10:40:30 From Scott Berger : DeltaMath Teacher Codes: They share these in threads in the DeltaMath Facebook Group, such as <https://www.facebook.com/groups/327183938709778/permalink/347005533394285>

10:41:06 From Alyona Atsalis : Math history helps to answer many students' "Why?" questions.

10:42:06 From hubbarts : Kursat: You do, though, have a cool Zoom background!

10:43:39 From Scott Berger : There is a rogue-like videogame that is played on hyperbolic surfaces free download (or purchaseable on steam); <https://roguetemple.com/z/hyper/download.php>

10:44:30 From Julie Valverde : Yes! Thank you for all the collaboration!

10:44:44 From almus : If you haven't signed up for certificate purposes, here is the form: https://forms.office.com/Pages/ResponsePage.aspx?id=vboLF_CikEytSw6PDwxCWdeOxMBeQoNGh17JmXeQAVUNEYxVIEwQIVGVTM0TDdOVktUVk00WldGRy4u

10:45:45 From DANA HILL : my kids asked me recently how I knew the math SO well, (in precal) and said because I have to explain it three times a day, every year.

10:47:31 From DANA HILL : We have hardly touched ours so far this year

10:48:27 From Amber M. Smith : What are the usage/copyright concerns with sharing emulators?

10:48:39 From Angela Gueli : so i can't use wabbit on my ipad right?

10:48:52 From Diane Hudson : I tell mine "You get a calculator when you NEED a calculator"; they are frightened when they walk in and all the Nspires are out on desks.

10:49:00 From Scott Berger : Desmos App is also free - how soon until Desmos is legal on the AP Exam

10:49:05 From SaraHopeMc : GraphnCalc83 on iPhone/Ipad is pretty close! My students use it!

10:49:16 From Ann Guillerman : My son is an engineering teacher at Katy HS.

10:49:17 From Amber M. Smith : No, there's not a good free emulator for ipad.

10:49:37 From Barb Kline : our students use Calculate84 app on the iPad....it has been pretty good so far

10:49:51 From moleres : and my TI representative provided a Beta version of the TI-84 app for chrome books for students

10:50:22 From Amber M. Smith : TI Chromebook app can be free through this schoolyear from your TI Rep!

10:50:57 From Jeff Morgan : FYI - I am a huge opponent of writing $\log x$, $\sin x$, $\cos x$, etc. \log , \sin and \cos are functions. We wouldn't write $f x$ instead of $f(x)$ for a function named f .

10:51:09 From moleres : move closer to the intersection for your selection

10:51:22 From Melani James : does rabbit show up in color better using a document camera?

10:51:27 From Linda Conklan Bibb : I agree, Jeff!!

10:52:01 From Linda Conklan Bibb : I prefer doing Y1-Y2 and finding zeros

10:52:05 From Pauline Cheng : Agree, Jeff. Using () actually help my students see that is input and what is the output.

10:52:36 From DANA HILL : YES! never round in the middle of a program. I do teach that

10:52:49 From DANA HILL : program = problem

10:52:51 From Scott Berger : Yes, I have students saying "multiply both sides by log" or "multiply by sin" and putting parentheses around the argument can help

10:53:21 From Scott Berger : $(\sin x)/n = 6$ (cancel the 'n' on top and bottom)

10:53:23 From moleres : do you also teach numeric solve on the 84

10:53:26 From Barb Kline : Virge's circuits are the best!!!!

10:53:30 From DANA HILL : I've used three of hers, from her bundle

10:53:36 From DANA HILL : so far this year

10:54:12 From Melani James : where are her bundles ? teachers pay teachers?

10:54:20 From DANA HILL : yes tpt

10:54:33 From DANA HILL : NO ANSWER KEYS, beware

10:54:37 From DANA HILL : beware*

10:54:54 From Pauline Cheng : The answer key is built in the circuit.

10:54:59 From DANA HILL :
<https://www.teacherspayteachers.com/Browse/Search:virge%20cornelius%20circuits%20bundles>

10:55:09 From Melani James : thanks

10:55:10 From April Dickerman : Sometimes she posts certain ones for free on the Facebook page

10:55:11 From DANA HILL : well yes, Pauline

10:55:20 From Diane Hudson : Sometimes the answers are not in the form you expect, so you do want to work it yourself first.

10:55:21 From Reynold D'Souza : 3

10:55:26 From Brandon Barrier : 3

10:55:29 From Barb Kline : 3

10:55:48 From Reynold D'Souza : 2

10:55:49 From Brandon Barrier : 2

10:55:50 From DANA HILL : 2

10:55:50 From Barb Kline : 2

10:56:48 From SaraHopeMc : We call these scavenger hunts

10:56:56 From DANA HILL : is Virge short for anything?

10:57:14 From DANA HILL : Virgina maybe?

10:57:16 From DMDAUVE : I'm pretty sure it's Virginia

10:57:32 From DANA HILL : that was my grandmothers name, she went by gina

10:57:57 From Pauline Cheng : Try the free materials and see whether your students like them.

10:58:09 From DANA HILL : who?

10:58:37 From DANA HILL : 112358132134....

10:58:44 From Pauline Cheng : Anyone in the TPT

10:58:46 From DAKOTA DORAN : Bekki George

11:00:01 From DANA HILL : And these are not easy.

11:00:28 From Amber M. Smith : Virge shared a circuit in each of the AP Calc AB review videos on youtube last spring

11:00:33 From DANA HILL : They r tough though, cannot be completed in a single classperiod.

11:01:36 From Scott Berger : Our school won't let us use Zoom, only Teams - no breakout rooms :/

11:01:53 From Julie Valverde : You can create channels on Teams.

11:02:08 From A Brewer : I use TEAMS too

11:02:09 From Jeff Morgan : Yes. Use channels for breakouts

11:02:11 From Ann Guillerman : We can't use Breakout in Teams yet.

11:02:17 From James West : Scott, it is not perfect, but you could have extra rooms set up before hand.

11:02:22 From Scott Berger : I'm not sure they give us access to channels

11:03:00 From Julie Valverde : You could also create a Jamboard for groups and have them collaboratively work on it.

11:03:00 From Scott Berger : Our setup reflects a skittishness about having us have student groups where we "show up later" - the gathering terminates when the teacher leaves the room

11:03:08 From A Brewer : I have the kids start their own meeting and I can join and check in to their meetings

11:03:35 From Scott Berger : We don't have administrative privileges to create teams or channels, I don't believe

11:03:46 From Pauline Cheng : In my classroom, I have three displays and a camera on the ceiling. I post my remote learners on the big screen so the on-site learners can discuss with remote learners.

11:03:50 From James West : Ah, well that certainly complicates matters.

11:04:04 From Denise Stasio : dstasio@st-agnes.org Denise for Teams groups

11:04:23 From Amber M. Smith : strong math students are scared to show vulnerabilities?

11:04:42 From Amber M. Smith : Maybe include some problems where they brainstorm all the "right & wrong" ways to do a problem?

11:06:09 From Julie Valverde : Also error analysis helps get students talking. They love to talk about what is wrong.

11:06:49 From DANA HILL : you do this in the functions unit or in polynomials? Or elsewhere?

11:07:29 From DANA HILL : that's ,my mouse

11:08:14 From DANA HILL : the kids are going to say use a triangle

11:08:51 From Scott Berger : yes, trapezoid rule located after Right and Left (later on this handout) will let the students do that triangle

11:10:05 From DANA HILL : when?

11:10:16 From ggssg : yes. geometry

11:10:39 From James West : Bekki George says hello

11:11:02 From James West : Those are pi tattoo pics, by the way.

11:11:41 From DANA HILL : I want a pi tattoo - my husband called me a nerd

11:12:04 From Adam Casey : I would end my Precal course with a "link to AP Calculus" unit. So last three weeks or so.

11:12:18 From Pauline Cheng : The students can be exposed this topic in Pre-AP Geometry.

11:12:19 From Blerina : They could be fit anywhere under functions as applications using functions

11:12:38 From DANA HILL : I do a intro to cal course, self paced, over the summer.

11:12:51 From Adam Casey : I stick with the TEKS up until that point, and then preempt whatever I *should* be doing right at the end.

11:13:04 From James West : These were Bekki's tattoo mentioned by Jeff.

11:13:16 From James West : She was excited to be mentioned.

11:14:28 From moleres : There is a very nice application of sums of trapezoids modeling a riverbed in EngageNY algebra 2 topic B lesson 21

11:15:29 From Scott Berger : <https://www.engageny.org/resource/algebra-ii-module-1-topic-b-lesson-21>

11:16:25 From Ashley Reynoso : Our honors geometry teacher has used a very basic application of Riemann sums in dealing with composite area/figures. It's been interesting to see which students remember when they get to Calculus

11:18:00 From DANA HILL : why did he make the x negative?

11:18:10 From DANA HILL : nevermind

11:18:13 From DANA HILL : ignore me

11:21:01 From DANA HILL : I want to learn Adobe Animate sp I can show this stuff

11:22:38 From Scott Berger : I saw an animation someone had made in Desmos. A simpler example is just Riemann sum in desmos e.g. <https://www.desmos.com/calculator/bigznb4sf>

11:22:59 From DANA HILL : ooo, nice

11:23:02 From Deborah Hansberry : Covering long division now in precal

11:23:07 From Scott Berger : Aha! here it is

11:23:08 From Scott Berger : <https://www.desmos.com/calculator/ndliwve1xu>

11:23:08 From DAKOTA DORAN : I use GeoGebra for all of my animation needs

11:23:31 From Linda Conklan Bibb : Check out the box method for long division

11:24:11 From Pauline Cheng : Very interesting, Ashley R. I would like to find out more about that. Is there a way I can contact him/her?

11:24:56 From DANA HILL : box method??

11:25:45 From Pauline Cheng : I use long division to teach horizontal and slant asymptotes instead of memorizing the "rules" related to the degrees of numerator and denominator.

11:26:03 From DANA HILL : like this? <https://www.youtube.com/watch?v=Yt0QQPjqJsl> (google search)

11:26:12 From Scott Berger : $u = x^2 + 1$; $(-1/2)du = -x dx$

11:27:29 From ggssg : Does everyone teach completing the square to non-Pre-Calculus in Algebra 2

11:27:38 From DANA HILL : tan

11:27:42 From DMDAUVÉ : yes, I do

11:27:46 From DMDAUVÉ : @ggssg

11:27:59 From Scott Berger : Pauline C. - I do the same. I think that a horizontal asymptote is just a slant asymptote with a slope of zero

11:28:01 From DANA HILL : I JUST taught the derivate of inverse tan yesterday LOL

11:28:20 From Pauline Cheng : I think in graphing Rational Functions, we can convert rational form to "transformation" form via completing the square and long division.

11:28:24 From James West : Here is a quick GeoGebra file for that revolution about the x-axis.

11:28:27 From Barb Kline : our students see completing the square for the first time in Algebra 1

11:28:30 From DANA HILL : NO BLURT ZONE!

11:28:38 From DANA HILL : :)

11:29:06 From Pauline Cheng : Completing the Square has become one of the TEKS in Algebra 1 several years ago.

11:29:06 From Scott Berger : Is there a way to post in the chat window but cover it with a Spoiler tag, so I can blurt but hide it?

11:29:09 From James West : Plug for GeoGebra, by the way.

11:29:15 From Reynold D'Souza : You mean $(x + 3)^2$

11:29:28 From Deborah Hansberry : That is what I got

11:30:35 From Deborah Hansberry : I struggled explaining why we had to add the 9 instead of take it way with my bc kids yesterday

11:31:07 From Deborah Hansberry : Yes..it did

11:31:52 From Diane Hudson : If you take the negative out of everything first, it's a neg 9 and neg 7. You can distribute the negative at the end to fix the sign.

11:34:05 From Scott Berger : :spoiler: $4+x$:spoiler:

11:34:44 From DANA HILL : $4^2 - x^2$

11:35:29 From DANA HILL : positive real numbers?

11:35:38 From DANA HILL : wait..

11:35:42 From DANA HILL : smaller than 16

11:35:54 From Pauline Cheng : $0 < x < 4$

11:37:25 From Scott Berger : could also factor $(4-x)(4+x)(4+x)$ and let $u = 4+x$ to get $8u - u^3$

11:38:52 From DANA HILL : [Alpha][y=] fraction mode

11:40:03 From DANA HILL : 100

11:40:48 From Laura Bookout : I like my students to use the table to observe y-values instead of guessing the window

11:41:36 From Scott Berger : $x = r/3$

11:42:21 From DMDAUVÉ : This is a great problem! Thanks for showing it

11:42:57 From moleres : Is there a way to show table values on demos graphing calculator for a the function?

11:42:59 From Scott Berger : hard to have a community clearinghouse for the Desmos

11:43:21 From Amber M. Smith : Some desmos are very easy to manipulate. Card sort & Polygraphs are very easy to create.

11:43:39 From Amber M. Smith : If you want self checking, that's where the computation layer begins.

11:43:40 From Scott Berger : we've done an occasional quiz/test as a Desmos activity (mult choice, numeric response, sketch all are well-supported)

11:44:00 From DANA HILL : click the triangle... colapses it

11:44:26 From Amber M. Smith : In desmos, if you want to create classroom activities, make sure you go into your settings (at top right) and turn on a few check boxes (including marbleslides).

11:44:26 From Scott Berger : I like the Teacher Panel to show students where the class is at

11:44:29 From DANA HILL : bigger screen, click the four arrows near the center top

11:45:08 From JENNIFER NICHOLSON : skewthescript.org is creating desmos activities for AP Statistics - using desmos like a math-specific peardeck or nearpod. Here's one example:
<https://teacher.desmos.com/activitybuilder/custom/5f94683abbde0b0cf436ae21>

11:45:29 From Amber M. Smith : Hint: Use google to search for desmos. You'll get more results!

11:45:49 From Amber M. Smith : When you see a link, "calculator" vs "activity builder"

11:46:58 From Amber M. Smith :
<https://teacher.desmos.com/collection/5f6795951b32b8204a5e7559>

11:47:30 From Amber M. Smith :
<https://teacher.desmos.com/collection/5cd9c7d21556ef0c87cd402e>

11:47:37 From DANA HILL : I really like card sorts. But the ones I make myself don't self check.
:(

11:48:08 From Amber M. Smith :
<https://teacher.desmos.com/collection/5cacc5a38416f60ca594f84a>

11:48:12 From Scott Berger : Hmm building a key during the activity I think is new-ish

11:48:17 From Amber M. Smith : The coding to self check is very easy!

11:48:39 From Amber M. Smith : Turn on computation layer in the settings. I'll find a link to the coding for cardsort self check.

11:48:56 From DANA HILL : Amber, we can get together on that, I would love to know more

11:50:09 From Scott Berger : Hey, you don't need to use Computation Layer to check-able Card Sorts. Just click on Answer Key and then drag cards together into groups - it is automatic for Desmos to do those for you

11:50:32 From Scott Berger : Desmos will say "Group your cards together to create the Answer Key"

11:51:42 From DANA HILL : but that doesn't tell the kids if they got them right, I use that to grade it but I have to go in and do that

11:54:04 From Scott Berger : Yes you're right - computation layer does that - without it you're limited to showing them your teacher panel of aggregated class performance (shows "common mistakes" mismatched cards eg)

11:54:13 From Amber M. Smith : Here's a demo card sort that tells students:
<https://teacher.desmos.com/activitybuilder/custom/5cef357e29e03b2c0f0edd26>

11:54:39 From almus : If you haven't done so, please fill in this form:
https://forms.office.com/Pages/ResponsePage.aspx?id=vboLF_CikEytSw6PDwxCWdeOxMBeQoNGh173JmXeQAVUNEYxvIEwQIVGVMT0TDdOVktUVk00WldGRy4u

11:55:31 From Amber M. Smith : Thank you!

11:55:32 From SHERRY REDDINGTON : thank you

11:55:36 From mhunt : Thank you, Cedric!

11:55:38 From Barb Kline : so much great information....thank you

11:55:40 From duy phan : Thank you sir.

11:55:42 From Ann Guillerman : Ye! Thank you!

11:55:46 From DMDAUVÉ : Yes! Agreed. Thank you SO much for sharing so much and covering such a wide variety of topics! Thanks Cedric!

11:55:47 From Dan Fredrickson : Thank you!

11:55:50 From Diane Hudson : Thank you !

11:55:50 From moleres : Thank you!

11:55:52 From April Dickerman : Thank you!

11:55:52 From Sherri Scott : Thanks so much.

11:55:52 From Reynold D'Souza : Thanks a lot for all the great resources.

11:55:52 From ggssg : Thank you!!!!

11:55:53 From Julie Valverde : Thank you so much!

11:55:56 From SaraHopeMc : Thanks much!!

11:55:56 From Scott Berger : Thank you!!

11:55:57 From Melani James : thanks so much.

11:55:58 From Navid's iPhone : ty

11:55:59 From Merly Serrano : Thank you!

11:56:00 From Pauline Cheng : Thank you all for the workshop!

11:56:17 From ettab : thank you

11:56:19 From Syeda Zuma : Thanks a bunch.

11:56:21 From A Brewer : Thank you all!

11:56:29 From Ashley Reynoso : thank you!

11:56:47 From Alyona Atsalis : I have a question

11:57:05 From almus : <https://twitter.com/DrAlmus/status/1325098364145430529?s=20>

11:57:43 From almus : If you are on twitter, I tweeted about our workshop there. @DrAlmus

12:01:02 From almus : <https://twitter.com/TimBrzezinski/status/1281638732710502406?s=20>