Math Sample Choice Boards

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Please note: every resource is sourced with links to the website where the activity can be found.

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Kindergarten Math Choice Board: 1 Week

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2.1.K.A.1, 2.1.K.A.2 (Source: <u>visualpatterns.org</u>) Below is a pattern of circles in stages 1-3 below. Draw what you think stage 4 might look like. Label how many circles are in each stage.	2.3.K.A.1 House Scavenger Hunt
	Set a timer for 5 minutes. Take a walk around your home and see how many of the following shapes you can find! See if you can find more than someone else in your home!
000 000 000	Circles, squares, rectangles, triangles
	Cubes, spheres
Standards of Mathematical Practice 1 and 3 (Source: https://mathbeforebed.com/2018/01/08/which-character-doesnt-belong/)	$\begin{array}{c c} 2 \\ H_{\text{C}} \end{array} 3 + ___= 10 \qquad 10 = __+ 5 \qquad 10 = 7 + ___$
Which one doesn't belong? Why?	6 + = 10 1 + = 10 10 = 2 +
Can you make an argum	
2.1 K.A.1	2.1.K.A.1, 2.3.K.A.1
	Using the digits 1 to 6, at most once each time, fill in boxes and identify a shape in the blank to
Complete the following number sequences and $000 - \frac{16}{16} - \frac{20}{16}$	make as many of the following statements true as you can. There are in the picture
create spots on the caterpillar's body that	There are in the picture
above it.	There are in the picture



Choose a different activities each day. The goal is to complete every activity in 5 days! When you complete an activity, color in the box with a light color. Feel free to try to create your own with any object and a cup! Have fun!

Kindergarten Math Choice Board: 1 Week







1 2 3 4 5 6 7 8 9 10 11 12

, ,							
2.2.1.A.1, 2.2.1.A.2, 2.1 (Source: https://www.youcubi <i>Tic Tac Toe Sums</i> Materials: • Two markers fo • Two sets of diff • Tic-Tac-Toe Su How to Play: • Player X and Pl markers on that • Player X may m on the grid cove • Player O may n covers it on the would be 12 + ⁴ • Players alternat marked four sur	1.1.B.3 ed.org/task or the botto erent mark ms Game layer O ea t addend. hove only c ering the s nove only c grid. The 12 = 24 an te moving ms in a row	m row of a ers for ear Sheet ch select of one of the um of the to one adden markers ca d the plays one adder v. After the	addends (f ch player t one of the two adden d marker a an be plac er would c an be plac	or example o cover ea numbers, (id markers ds. at the botto ed on the s over 24 on at a time a ayers shou	e, paper cli ich sum (fo 0 – 12 at th to a differ om of the p same num the grid. nd continu ld discuss	ips) or example ne bottom ent adden bage, 0 – 1 bers, 0 – 1 le placing their strate	 2.2.1.A.1, 2.2.1.A.2, 2.1.1.B.3 (Source: https://www.youcubed.org/tasks/pig/) <i>PIG</i> The goal is to be the first player to reach 100. On your turn, roll the dice and determine the sum. You can either stop and record that sum or continue rolling and add the new sums together. Roll the pair of dice as many times as you choose. Again, when you decide to stop, record the current total for your score (and add it to your previous score). But beware! If you roll a 1 on exactly one die, your turn ends and 0 is your recorded score for that turn. And, if you roll double 1's, your turn ends and your entire score is set back to 0.
	1	2	3	4	5	6	
	7	8	9	10	11	12	2.1.1.B.3 (Source: https://www.openmiddle.com/adding-two-digit-numbers-elementary/) Using the digits 1 to 9 at most one time each, fill in the boxes to make the smallest (or largest) sum.
	13	14	15	16	17	18	
	19	20	21	22	23	24	· · · · · · · · · · · · · · · · · · ·
	13	14	15	16	17	18	2.1.1.B.3 (Source: <u>https://www.openmiddle.com/subtracting-two-digit-numbers-elementary/</u>) Using the digits 1 to 9 at most one time each, fill in the boxes to make the smallest (or largest) difference
			1				

•		
•		



Choose a different activities each day. The goal is to complete every activity in 5 days! When you complete an activity, color in the box with a light

1st Grade Math Choice Board: 1 Week



When you complete an activity, color in the box with a light color.	Have fun!	2nd Grade Wath Choice Board: 2 Week
2.2.2.A.1, 2.1.2.B.3 Using the digits 1 to 9 at most one time each, fill in the boxes to create the closest possible sum to 100.	2.4.2.A.3 (Source: https://www.openmiddle.com/making-change/) Make 47¢ in three different ways with either quarters, dimes, nickels, or pennies.	2.1.2.B.1, 2.1.2.B.3 Place Value War with Cards (use Ace - 10 only) Players split a deck of cards and simultaneously flip over their top three cards to create a 3-digit number. Players of the cards and place in any position of the number they w largest (or smallest) number will win the round. First to 10 will win the whole game! (Extension: Play with four cards each)
	(Extension: Change the target amount of change and repeat the task)	
 2.2.2.A.3 (Source:https://www.nctm.org/Classroom- Resources/Illuminations/Interactives/Nim-Games/) 21 Nim Game Materials: 21 pennies, or any other object. Place a pile of 21 pennies between two players. Players take turns removing one, two or 3 pennies from the pile. You must take at least one penny on your turn, but you may not take more than three. Whoever takes the last penny is the winner. 	 2.1.2.B.1, 2.1.2.B.3, 2.2.2.A.2 (Source:https://scmath.org) Convince me that the following are true or false: 23 - 9 = 14 2 hundreds, 9 tens, and 10 ones equals 300 113 is less than 13 tens The sum of two odd numbers is always even 	2.1.2.B.1, 2.1.2.B.3 <i>War with Cards (use Ace - 10 only)</i> Players split a deck of cards and simultaneously flip over Find the sum (or difference) of your 2 cards. The highest wins all the cards played. If the cards have the same valu player lays three cards face down, then a new card face card with the highest (or lowest) value wins all the cards round, including the face-down cards.
You can play 21 Nim with anything: pennies, beans, socks, lines on a piece of paper(Storce: https://www.youcubed.org/tasks/pepper oni-pizza/)		
 2.2.2.A.3 Pepperoni Pizza Ask students roll a dice twice. The first roll tells them how many pizzas to draw. The second roll tells them how many pepperonis to put on EACH pizza. Then they write the number sentence that will help them answer the question, "How many pepperonis in all?" For example, I roll a dice and get 4 so I draw 4 big pizzas. I roll again and I get 3 so I put three penperonis on each pizza. 	2.3.2.A.2 (Source:https://www.openmiddle.com/shape-partitions/) Using the same cut pattern for each figure, partition each shape into fourths. Using different cut patterns for each figure, partition each shape into fourths. Cut pa	2.2.2.A.1, 2.1.2.B.3 (Source:https://www.openmiddle.com/subtrac without-regrouping/) Using the digits 1 to 9, at most one time each, fill in the b that you would not need to regroup when you subtract. M your numbe 63 —



Choose a different activities each day, You are allowed to choose the same activities each day, but the goal is to complete every activity in 5 days!

"Tac Toe Sums" can be	e played da	ally! when	you comp	lete an act	ivity, colo	r in the bo	with a light color. Have fun!				
2.2.2.A.2 (Source: https://www.youcub <i>Tic Tac Toe Sums</i> Materials: • Two markers for • Tic-Tac-Toe Su How to Play: • Player X and P markers on tha • Player X may n on the grid cow • Player X may n on the grid cow • Player O may n covers it on the would be 12 + *	ed.org/task or the botto ierent mark ums Game layer O ea t addend. (nove only c ering the s nove only o egrid. The 12 = 24 an te moving ms in a row	s/tic-tac-tor m row of a cers for ea Sheet ch select o (markers a one of the um of the to one adden markers c d the playy one adder w. After the	e-sums/) addends (fi ch player t pre of the ure allowed two adden two adden ad marker a an be plac er would cu nd marker a e game plac	or example to cover ea numbers, (d to be stat d markers ds. at the botto sed on the s over 24 on at a time a ayers shou	e, paper cl cch sum (fo 0 – 12 at tl cked, it's a to a differ om of the p same num the grid. nd continu ld discuss	ips) or example doubles fi ent adden bage, 0 – ~ bers, 0 – ~ ue placing their strat	2.4.2.A.4 (Activities)pennies and nickels)f the page and places one of the ct)Player X then places a markerPlayer O makes a new sum and 2. For example, two markers on 12neir markers until a player has gies.	Source: mathlearningcenter.org and F prade class voted on their psicle flavors. They used to show many votes got. 1 H 2 H 3 H 4 H 5 D	Rio School Di Flavor Cheny Orange Grape Gr	strict Remote	Learning Votes at got the most votes. Grape got the least votes.
	1	2			-				Cherry	Orange	Grape
	1 7 13	2 8 14	9 15	4 10 16	5 11 17	6 12 18	2.2.2.A.1, 2 (Source: http: Directions: <u>Version 1 (</u> Lucy has _ many apple	2.2.2.A.2 ://www.openmiddle.com/math-story/J Complete the story problem 3 Difficult) apples. She has nine es does (Lucy/Marcus) h	times and (more/ nave?	answer eac ess) than N	h statement. Iarcus. How
	19	20	21	22	23	24	(Luc	y/Marcus) has apples.			
	13	14	15	16	17	18	<u>Version 2 (</u> Lucy has _	Medium Difficulty) apples. She has nine les _(Lucy/Marcus) have?	s than Mar	cus. How m	any apples
	4	19	5	20	6	21					
				10			(Luc	y/Marcus) has apples.			

Version 3 (Easy)

Lucihaa

1 2 3 4 5 6 7 8 9 10 11 12



2nd Grade Math Choice Board: 1 Week

2.4.1.A.2

(Source: https://www.openmiddle.com/time-twister/)

Using the digits 0 to 9, at most one time each, create three different times on the clocks where the span of the times are between 12 noon and 7 pm. How can you make the difference between the times the greatest? How can you make the difference between the times the closest?





2.3.2.A.2 (Source: https://talkingmathwithkids.com/category/number/)

How many?





Make 6 groups of equal size. How many are in each group?

@MathBeforeBed

2.2.2.A.3 (Source: https://mathbeforebed.com/2017/09/03/equal-c

Visit the site to get a a printable version

Variations of this task:

Are these pictures of the same grapefruits? How do you know?

2.2.2.A.1, 2.2.2.A.2

(Source: https://www.openmiddle.com/math-story/)

Directions: Complete the story problem 3 times and answer each statement. *Version 1 (Difficult)*

Lucy has apples. She has nine

(more/less) than Marcus. How many



Choose a different activities each day. The goal is to complete every activity in 5 days! When you complete an activity, color in the box with a light color. You can do this with dice, dominos, or you can make your own!

2nd Grade Math Choice Board: 1 Week



M03.A-T.1.1 Using the digits 1 to 9 at most one time each, fill in the boxes to create the closest possible sum to 1000.	M03.B-O.1.1, M03.B-O.1.2, M03.B-O.2.2 (Source: https://www.openmiddle.com/baking-cookies/)	M03.A-T.1.1 Place Value War with Cards (use Ace - 10 only) Players split a deck of cards and simultaneously flip over
	Daniel was making chocolate cookies. He had cookies in each row and _ many rows. There were a total of 84 cookies. How many cookies were there in each row and how many rows of cookies were there? Draw a model to support your answer.	their top three cards to create a 3-digit number. Players r the cards and place in any position of the number they w largest (or smallest) number will win the round. First to 10 will win the whole game! (Extension: Play with four cards each)
(Source: <u>https://www.openmiddle.com/close-to-1000/</u>)		
(Source:https://www.nctm.org/Classroom- Resources/Illuminations/Interactives/Nim-Games/)	(Extension: Change the target amount of cookies and repeat the task)	
M03.B-O.1.1 21 Nim Game <i>Materials: 21 pennies, or any other object.</i>	M03.B-O.1.1, M03.B-O.1.2, M03.B-O.2.1 (Source: <u>https://scmath.org</u>)	M03.A-T.1.1, M03.B-O.1.2 War with Cards (use Ace - 10 only) Players split a deck of cards and simultaneously flip over Find the product of your 2 cards. The highest (lowest) va
Place a pile of 21 pennies between two players. Players take turns removing one, two or 3 pennies from the pile. You must take at least one penny on your turn, but you may not take more than three. Whoever takes the last genry in the wine youcubed.o rg/tasks/pepperoni-pizza/)	Convince me that the following are true or false: • 6×2 is the same as 2×6 . • $38 \div 4 \neq 9$ • $1/2 = 3/6$ • $3/4 = 6/8$	all the cards played. If the cards have the same value, ea lays three cards face down, then a new card face up. The with the highest (or lowest) value wins all the cards from round, including the face-down cards.
You can play 21 Nim with anything: pennies, beans, socks, lines on a piece of paper, etc.		
M03.B-O.1.1, M03.B-O.1.2 Pepperoni Pizza Ask students roll a dice twice. The first roll tells them how many pizzas to draw. The first roll tells them how many pizzas to draw.	Fill in the blanks with digits to make the answer closer to 200 than 300.	M0 sma Usi to create the smallest possible difference.



M03.B-O.1.1, M03.B-O.1.2, M03.B-O.2.2

(Source: https://www.youcubed.org/tasks/tic-tac-toe-sums/)

Tic Tac Toe Products

Materials:

- Two markers for the bottom row of addends (for example, paper clips)
- Two sets of different markers for each player to cover each sum (for example, pennies and nickels)
- Tic-Tac-Toe Sums Game Sheet

How to Play:

- Player X and Player O select one factor, 1 9 at the bottom of the page and place one of the markers on that factor. (markers are allowed to be stacked, it's a doubles fact)
- Player X may move only one of the two markers to a new factor. Player X then places a marker on the grid covering the product of the two factors.
- Player O may move only one marker to make a new product and place their marker on the grid. The markers can both be placed on the same factor. For example 6 x 6 = 36.
- Players alternate moving one factor marker at a time and continue placing their markers on the grid until a player has marked four products in a row. After the game players should discuss their strategies.

M03.D-M.1.1 (Source: https://www.openmiddle.com/operations-with-time-2/)

Use the digits 1 to 9, at most one time each, to fill in the boxes to make the latest possible time.



M03.D-M.1.1

(Source: mathlearningcenter.org and Rio School District Remote Learning Activities)

Write the time shown on each clock.



1	2	3	4	5	6
7	8	9	10	12	14
15	16	18	20	21	24
25	27	28	30	32	35
36	40	42	45	48	49
54	56	63	64	72	81



M03.D-M.1.1

(Source: https://www.openmiddle.com/time-twister/)

Using the digits 0 to 9, at most one time each, create three different times on the clocks where the span of the times are between 12 noon and 7 pm. How can you make the difference between the times the greatest? How can you make the difference between the times the closest?



M03.A-F.1.1 (Source: <u>mathlearningcenter.org</u> and <u>Rio School District Remote Learning Activities</u>)

On each square, fill in a fraction of the square that is less than 1/2. Then use the symbols >, =, or < to compare your fraction to 1/2







M03.B-O.3.1

(Source: mathlearningcenter.org and Rio School District Remote Learning Activities)

Solve the story problems below. Show your thinking in words, numbers, or sketches for each one. Be sure to label your answers with the correct units.

A. Mr. Bee bought 3 jars of honey, which weighed a total of 24 ounces. If all the jars weighed the same amount, how much did each jar weigh?

A. Mrs. Bee also bought 24 ounces of honey. She put 3 ounces of honey into several small jars. How many jars did she use?

A. Mrs. Moth picked 8 flowers. Each flower had 6 petals. How many petals are on the flowers that Mrs. Moth picked?

M03.B-O.3.1, M03.D-M.2.1 (Source: <u>mathlearningcenter.org</u> and <u>Rio School District Remote</u> Learning Activities)

One day last spring, Ms. Brown asked her third graders to clean out their desks. She couldn't believe how many pencils most of the kids pulled out. "So that's where all the pencils have been!" she thought. Ms. Brown decided to take a survey to find out how many pencils had been hiding in the kids' desks. The table below shows the survey results.

Number of Pencils	Number of Students
1	2
2	7
3	8
4	5
7	3
8	2
10	1
12	1

Record the data on the line plot below.

Ms. Brown's Spring Pencil Survey



Number of Pencils





M04.A-T.2.1 (Source: <u>https://www.openmiddle.com/biggest-product/</u>)	M04.D-M.1.1 (Source: https://www.openmiddle.com/rectangles-maximizing-area/)	M04.A-F.3.1 (Source: <u>https://www.openmiddle.com/fraction-an</u>
() ()	What is the greatest area you can make with a rectangle that has a perimeter of 24 units?	Using the digits 0 through 9, at most one each time, create a equivalent fraction and decimal number.
M04.A-T.2.1 (Source: <u>https://www.youcubed.org/tasks/the-four-4s</u> /) The Four 4's Task	M04.A-T.2.1, M04.A-F.2.1 (Source: <u>https://scmath.org</u>) Convince me that the following are true or false: • $\frac{1}{3} < \frac{2}{3}$ • $\frac{1}{3} > \frac{1}{4}$	M04.A-F.2.1 (Source:https://www.openmiddle.com/comparing Use the digits 1 to 9, at most one time each, to fill in the box two different fractions: one that is less than one half and one than one half.
Can you find every number between 1 and 10 using only four 4's and any operation? (<i>Hint: You must use four 4's. You can use 44, but that would be two 4's being used</i>)	 The product of two odd numbers will always be odd 2/4 + 1/4 = ³/₄ 1/2 of a pizza is equivalent to 4/8 of a pizza. 457 - 3 has a remainder 	$\frac{1}{2}$ < $\frac{1}{2}$ and $\frac{1}{2}$ > $\frac{1}{2}$
Example: (4 + 4) ÷ (4 + 4) = 1	M04.A-T.2.1 (Source:https://www.openmiddle.com/biggest-	M04.D-M.1.1 (Source:https://www.openmiddle.com/rectangles
Using the digits 1 to 9 at most one time each, fill in the boxes to make the product as close to 7,000	product-3/) Using the digits 1 to 9 at most one time each, fill in the boxes to make the biggest/smallest product. () () ()	What is the greatest perimeter you can make with a r that has an area of 24 square units?



4th Grade Math Choice Board: 1 Week

M04.A-T.2.1, M04.B-O.1.1

(Source: https://www.youcubed.org/tasks/tic-tac-toe-sums/)

Tic Tac Toe Products

Materials:

- Two markers for the bottom row of addends (for example, paper clips)
- Two sets of different markers for each player to cover each sum (for example, pennies and nickels)
- Tic-Tac-Toe Sums Game Sheet

How to Play:

- Player X and Player O select one factor, 1 9 at the bottom of the page and place one of the markers on that factor. (markers are allowed to be stacked, it's a doubles fact)
- Player X may move only one of the two markers to a new factor. Player X then places a marker on the grid covering the product of the two factors.
- Player O may move only one marker to make a new product and place their marker on the grid. The markers can both be placed on the same factor. For example 6 x 6 = 36.
- Players alternate moving one factor marker at a time and continue placing their markers on the grid until a player has marked four products in a row. After the game players should discuss their strategies.

81	16	63	12	45	8	27	4
32	63	24	49	16	35	8	21
72	24	18	40	12	24	6	56
40	54	30	42	20	30	10	18
45	48	35	36	25	24	15	12
64	27	48	21	32	15	16	9
36	56	28	42	20	28	12	14
72	18	54	14	36	10	18	6

M04.D-M.3.1(Source: mathlearningcenter.org and Rio School District Remote Learning Activities)

When you measure an angle you usually have to choose between two numbers because protractors are designed to measure angles that start on either the right or left side. There are two angles to measure in each of the problems. The angle on the left side is angle A. The angle on the right side is angle B. Find and record the measure of both angles in each problem.



M04.A-F.2.1

(Source: mathlearningcenter.org and Rio School District Remote Learning Activities)

Fill in the blanks. Draw a picture to support your answer.

A. $\frac{1}{2}$ of 24 is	B. ¹ / ₄ of 24 is	C. $\frac{1}{8}$ of 24 is
D. ¹ / ₃ of 24 is	E. ¹ / ₆ of 24 is	F. $\frac{1}{12}$ of 24 is



4th Grade Math Choice Board: 1 Week

M04.D-M.1.1

(Source: mathlearningcenter.org and Rio School District Remote Learning Activities)

Please measure the following objects in centimeters and record the results.

Object to be Meas	sured	Measurement ir Centimeters
1. Width of your bed		
2. Width of a door	• •	
 Height from the floor to the seat of your favorite chair 		
4. Length of a telephone or cell phone		
5. Dimensions of your favorite book	Loretta and Data	

M04.D-M.1.1 (Source: mathlearningcenter.org and Rio School District Remote Learning Activities)

 Write a
 Measurement Equivalents

 1 kilometer
 1,000 meters
 100,000 decimeters
 100,000 centimeters

 1 meter
 10 decimeters
 100 centimeters
 100 centimeters

 1 decimeter
 1 decimeter
 10 centimeters

- A. How many centimeters are in 45 meters?
- B. How many meters are in 45 kilometers?
- C. How many meters are in 800 centimeters?





4th Grade Math Choice Board: 1 Week

M04.A-T.2.1, M04.B-O.1.1

(Source: http://www.wouldyourathermath.com/)



M04.D-M.1.1, M04.A-T.2.1, M04.B-O.1.1 (Source: http://www.wouldyourathermath.com/)

Justify your reasoning.

Would you Rather...

Have Cheez-It's® to cover a rectangle with..



A length of 9 and a perimeter of 22



A length of 5 and a perimeter of 20





M04.A-T.2.1, M04.B-O.1.1 (Source: http://www.wouldyourather



M04.D-M.1.1, M04.A-T.2.1, M04.B-O.1.1 M04.B-0.2.1 (Source: mathlearningcenter.org and Rio School District Remote Learning Activities) (Source: https://www.openmiddle.com/prime-numbers/) Alexandra and her dad built a deck in their backyard. It had an area of 48 square feet and a perimeter of 28 feet. What is the length and width of the deck? Use the digits 1 to 9, at most one time each, to make 5 prime numbers. M04.A-T.2.1 M04.B-O.2.1 (Source: https://www.openmiddle.com/composite-numbers/) (Source: https://www.openmiddle.com/division-fill-in-the-blanks-no-remainder/) Use the digits 1 to 9, at most one time each, to make 5 composite numbers. Fill in the blanks using all different non-zero digits (except the numbers 1 and 4, which have already been used) to make the greatest possible quotient.



The debut sonoit stilly 3 pounds

5th Grade Math Choice Board: 2 Weeks

M05.A-T.1.1 (Source:https://www.openmiddle.com/adding- decimals-to-make-them-as-close-to-one-as-possible/) Using the digits 1 to 9 at most one time each, fill in the boxes to make three decimals whose sum is as close to 1 as possible.	M05.D-M.1.1, M05.D-M.3.1 (Source: http://www.wouldyourathermath.com/) Have a pool that is 20mx8mx6m CR 1550cmx650cmx725cm	M05.A-T.1.1, M05.A-T.2.1 (Source: https://www.openmiddle.com/dividing- decimals-elementary/) Using the digits 1 to 9 at most one time each, fill in the boxes to make the smallest (or largest) quotient.
M05.A-T.2.1, M05.B-O.1.1 (Source: https://www.youcubed.org/tasks/the-four-4s/) The Four 4's Task Can you find every number between 1 and 12 using only four 4's and any operation? (Hint: You must use four 4's. You can use 44, but that would be two 4's being used) Example: (4 + 4) ÷ (4 + 4) = 1	 M05.A-T.1.1, M05.A-F.1.1, M05.A-F.2.1 (Source:https://scmath.org) Convince me that the following are true or false: 2/3 + 1/4 ≠ 3/7 5 ÷ 1/2 > 5 15.203 is less than 15.21 A circle is not a polygon 9.485 rounded to the nearest tenth is 9.5 	M05.A-F.1.1 (Source:https://www.openmiddle.com/adding-3-fractions-to-get- 1) Using the digits 1 to 9, at most one time each, place a digit in each box to make a true statement. $\frac{1}{10} + \frac{1}{10} + \frac{1}{10} = 1$
M05.D-M.1.1, M05.D-M.3.1 (Source: http://www.wouldyourathermath.com/) Pay \$0.24 for each banana OR Pay \$1.99 per pound of bananas?	M05.A-T.1.1, M05.A-T.2.1 (Source: <u>https://www.openmiddle.com/decimal-product-close-to-50/)</u> Using the digits 1 to 9 at most one time each, fill in the boxes so that the product is as close to 50 as possible.	$\begin{array}{c c} \textbf{M05.A-F.2.1 (Source: https://www.openmiddle.com/multiplying-fractions-to-make-a-whole-number/)}\\ Using the digits 1 to 9, at most one time each, place a digit in each box to make a whole number product. \\ \hline \\ $



M05.A-T.1.1(Source: https://www.openmiddle.com/place-value/) M05.A-T.2.1 (Source: https://www.youcubed.org/tasks/tic-tac-toe-sums/) Use the digits 1 to 9, at most TWO times each, to create a nine-digit number Tic Tac Toe Products and its corresponding place values. Materials: Two markers for the bottom row of addends (for example, paper clips) ٠ Two sets of different markers for each player to cover each sum (for example, pennies and nickels) . Tic-Tac-Toe Sums Game Sheet . How to Play: Player X and Player O select one factor, 1 - 9 at the bottom of the page and place one of the markers on that ٠ hundred millions hundreds factor. (markers are allowed to be stacked, it's a doubles fact) Player X may move only one of the two markers to a new factor. Player X then places a marker on the grid ٠ ten millions covering the product of the two factors. tens Player O may move only one marker to make a new product and place their marker on the grid. The markers ٠ can both be placed on the same factor. For example $6 \times 6 = 36$. millions Players alternate moving one factor marker at a time and continue placing their markers on the grid until a ones • player has marked four products in a row. After the game players should discuss their strategies. hundred thousands 81 27 16 63 12 45 8 4 ten thousands 32 63 24 49 16 35 8 21 thousands 24 72 18 40 12 24 56 6 M05.A-T.2.1 40 54 30 20 30 42 10 18 (Source: mathlearningcenter.org and Rio School District Remote Learning Activities) Candy Candies per Bag 45 48 35 36 25 24 15 12 Whitney's 9 cousins are coming Lemon Sours 147 27 32 15 64 48 21 16 Q to visit, and she wants to make Strawberry Kisses 216 them each a little gift bag. She Pineapple Sweets 193 wants to put an equal number of 36 56 28 42 20 28 12 14 little candies in each bag, eat 3 candies herself, and have none left over. 72 18 54 14 36 10 18 6

2 3 4 5 6 7 8 9

A. Which bag of candies should she buy? Show all of your work. *Hint*: Can you remember a divisibility rule to help?



M05.A-T.1.1, M05.A-T.2.1 (Source: http://www.between2numbers.com/)





An ant can carry 50 times its own weight. But a certain species of dung beetle can pull 1,141 times its own body weight.



M05.A-T.1.1, M05.A-T.2.1 (Source: http://www.between2numbers.com/)

M05.A-T.2., 1 M05.D-M.1.1 (Source: <u>mathlearningcenter.org</u> and <u>Rio School District Remote</u> Learning Activities)

For each problem, write whether you agree or disagree. Then explain your thinking using numbers, words, and/ or labeled sketches.

A. The track at the high school is 400 meters. After she ran 6 times around Isuko said she'd gone more than 2 kilometers.



A. Mr. Madison needs 175 granola bars for the 5th grade field trip. The bars come in boxes of 10. He'll need to buy 17 boxes to have enough.



A. There are 46 kids in the After-School Club. Today they're going to the pool at the Community Center. If each minivan can take 6 kids, they'll need 8 minivans for all the kids.

M05.C-G.2.1

(Source: https://www.openmiddle.com/which-quadrilateral-has-a-greater-area/)

Which quadrilateral has a greater area? Quadrilateral A has its perimeter equal to 44 units. Quadrilateral B has the sum of its interior angles equal to 360 degrees.



Choose a different activities each day. The goal is to complete every activity in 5 days! When you complete an activity, color in the box with a light color.

5th Grade Math Choice Board: 1 Week

M05.A-T.1.1, M05.A-T.2.1

(Source: mathlearningcenter.org and Rio School District Remote Learning Activities)

Vivian loves to paint in the evenings after school. She is working on three paintings. She needs 4 brushes, 3 canvases, and 12 small tubes of paint. Brushes cost \$0.75 each, canvases cost \$5.99 each, and tubes of paint costs \$1.89 each.

Write an expression to determine Vivian's cost, then solve the problem. Α.

M05.A-T.1.1

(Source: https://www.openmiddle.com/order-of-operations-4/)

Use the digits 0 to 9, only once, to make the inequality true.



Α. Help Vivian determine the average cost per painting. Write an expression and then solve the problem.

M05.B-O.2.1

(Source: https://www.openmiddle.com/number-pattern/)

Using the digits 1 to 7, at most one sum of the numbers in 3 squares (t

e.q A+B+C or D+B+E or F+B+G Is there more than one solution?

G

M05.A-T.1.1 (Source: https://www.openmiddle.com/operation-symbols/)

2[](3[]7[]9) = (1[]5)[](8[]4)



The Bugatti Veyron's top speed is about 408.84 km/h (254.04 mph) and costs around \$2 million.





When you complete an activity, color in the box with a light color. Have fun!		6th Grade Math Choice Board: 1 Week
M06.A-R.1.1, M06.B-E.1.1 (Source: https://openupresources.org/math-curriculum/)	M06.A-R.1.1, M06.B-E.1.1 (So Select all the expressions that	burce: <u>https://openupresources.org/math-curriculum/</u>) t are equivalent to 3 ⁴ .
Noah raised \$54 to support the animal shelter, which is 60% of his fundraising goal.	A. 7	D. 81
1. Write an equation to represent the situation.	B. 4 ³	E. 64
	C. 12	F. 9 ²
1. What is Noah's fundraising goal? Show or explain how you found it.	- 0 - 0	$2 - 2^{5}$
	Decide whether eac $b.7 + 7 + c. \frac{1}{7} \cdot \frac{1}{7}$	5 = 3 + 7 = 3 + 3 + 3 + 3 + 3 + 3 + 3 = 3 w you know. $\cdot \frac{1}{7} = \frac{3}{7}$
 A crew has paved 3/4 of a mile of road. If they have completed 50% of the work, how long is the road they are paving? 	d. 4 ¹ = 4 e. 6 + 6 +	$\cdot 1$ + 6 = 6 ³
M06.D-S.1.1 (Source: https://www.openmiddle.com/mean-median-and-range/)	M06.A-N.1.1 (Source: https://www.cooperiddle.com	milionation division 90
Create a set of five positive integers from 1 to 20 that have the same mean, median, and range.	Use the digits (•
		•



6th Grade Math Choice Board: 1 Week

M06.A-N.3.1 (Source:

 $\label{eq:https://www.hasdk12.org/cms/lib/PA01001366/Centricity/Domain/164/PictureGraphingSixPackPlottingPointsonaCoordinatePlane.pdf) \end{tabular}$



	Graph the	se points in a	order to creat	te the picture	of a much-t	peloved fic	tional chara	cter.
hape 1:	Shape 3	:	Shape 4:		Shape 5:			Shape 6:
4, 6)	(6, -2)	(7, -9)	(-5, -2)	(-6, -10)	(3, -13)	(5, -10)	(-1, -13)	(-5, -10)
6, 6)	(3, -4)	STOP	(-2, -4)	STOP	(-2, -13)	(6, -8)	STOP	(-5, 7)
6, 7)	(3, -5)		(-2, -5)		(-2, -14)	(6, -7)		(-4, 10)
4, 7)	(6, -3)		(-5, -3)		(0, -14)	(4, -8)		(-3, 11)
TOP	(7, -8)		(-5, -4)		(1, -13)	(4, -3)		(-1, 12)
	(7, -9)		(-6, -6)		(1, -11)	(2, -4)		(2, 12)
hape 2:	(8, -11)		(-6, -13)		(1, -13)	(-1, -4)		(4, 11)
-3, 7)	(7, -12)		(-4, -13)		(2, -14)	(-3, -3)		(5, 10)
-5, 7)	(6, -12)		(-3, -12)		(4, -14)	(-3, -8)		(6, 8)
-5, 6)	(5, -11)		(-4, -11)		(4, -13)	(-5, -7)		(6, -7)
-3, 6)	(6, -11)		(-5, -11)		(3, -13)	(-4, -10)		STOP
TOP	(6, -9)		(-5, -10)		(3, -12)	(-2, -11)		

Created by Jason Murphy © 2014.



Using the digits 0 to 9 at most one time each, fill in the blanks to create a quadrilateral with an area of 16 square units.

 $(_, _) (_, _) (_, _) (_,]$



M06.C-G.1.1 (Source: https://www.openmiddle.com/order-of-operations-4/)

What is least amount of surface area possible on a rectangular prism with a volume of 64 cubic inches?

M06.B-E.1.1

(Source: https://www.openmiddle.com/solving-one-step-equations-greatest-solution/)

Use the digits 1 to 9, at most one time each, to create an equation where x has the greatest possible value.



M06.B-E.1.1

(Source: https://www.openmiddle.com/equivalent-exponents/)

Using the digits 0-9 only once each, create as many true equations as possible.



M06.D-S.1.1 (Source: https://www.openmiddle.com/lower-and-upper-quartiles-with-constraints/)

Create a statistical data set of at least 10 numbers such that:

1. All of the numbers in the data set are whole numbers.

2. The lower and upper quartiles are not whole numbers.

3. The lower and upper quartiles are not part of the data set.

7th Grade Math Choice Board: 2 Weeks



As of April 1, 2020, the 972 sq-ft house (on the far left) in Oak



7th Grade Math Choice Board: 1 Week

M07.A-R.1.1, M07.B-E.2.3 (Source: https://www.wouldyourathermath.com/) Which option would you rather buy, when purchasing a new phone? Select storage capacity Choose 16**G**B 128GB **64GB** Select pricing Pricing details Option A \$25.00/month 30 Installments Trade in after 24 months \$31.25/month **Option B** Trade in after 18 months 24 Installments OR Option C \$37.50/month Trade in after 12 months 20 Installments \$225.00 due now **Option D** when Due now \$18.75/month Trade in after 12 months with a 30% 28 Installments one-time down payment. **Option** E \$749.99

Due today

Own your device today

Option A, **Option B**, **Option C**, **Option D**, **Option E** purchasing a new phone?

M07.A-R.1.1, M07.B-E.2.3 (Source: https://www.wouldyourathermath.com/) Which coupon would you rather use? Is there a time where one is better than the other one?



M07.A-N.1.1

(Source: https://openupresources.org/math-curriculum/)

A weather station on the top of a mountain reports that the temperature is currently 0°C and has been falling at a constant rate of 3°C per hour. Find each temperature, Explain or show your reasoning.

- Α. If it continues fall at this rate, what will the temperature be:
 - in 2 hours?
 - ii. in 5 hours?
 - iii in half an hour?

В. What was the temperature:

- 1 hour ago?
- ii 3 hours ago?
- iii 4.5 hours ago?



M07.B-E.2.2, M07.B-E.2.3 (Source: https://openupresources.org/math-curriculum/)

Match each equation to a story. (Two of the stories match the same equation.)

- 3(x+5)=17 1.
- 2 3x+5=17
- 3 5(x+3)=17
- 4 5x+3=17
- A. Jada's teacher fills a travel bag with 5 copies of a textbook. The weight of the bag and books is 17 pounds. The empty travel bag weighs 3 pounds. How much does each book weigh?
- B. A piece of scenery for the school play is in the shape of a 5-foot-long rectangle. The designer decides to increase the length. There will be 3 identical rectangles with a total length of 17 feet. By how much did the designer increase the length of each rectangle?
- C. Elena spends \$17 and buys a \$3 book and a bookmark for each of her 5 cousins. How much does each bookmark cost?
- D. Noah packs up bags at the food pantry to deliver to families. He packs 5 bags that weigh a total of 17 pounds. Each bag contains 3 pounds of groceries and a packet of papers with health-related information. How much does each packet of papers weigh?
- E. Andre has 3 times as many pencils as Noah and 5 pens. He has 17 pens and pencils all together. How many pencils does Noah have?

07.A-R.1.1 (Source: https://openupresources.org/math-curriculum/)

There is a proportional relationship between the volume of a sample of helium in liters and the mass of that sample in grams. If the mass of a sample is 5 grams, its volume is 28 liters. (5, 28) is shown on the graph below.

Α.

в C.

D.

E.

M07.A-R.1.1

curriculum/)



7th Grade Math Choice Board: 1 Week



M07.B-E.2.2, M07.B-E.2.3 (Source: https://openu Three students each attempted to solve the e methods. Do you agree with any of their meth Noah's method: $2(x - 9) = 10$ $2(x - 9) + 9 = 10 + 9$ $2x = 19$ $2x \div 2 = 19 \div 2$ $x = \frac{19}{2}$	presources.org/math-curriculum/) quation 2(x-9) = 10, but got different solut iods, and why? add 9 to each side divide each side by 2	ions. Here are their $ \begin{array}{l} \textbf{M07.B-E.2.2, M07.B-E.2.3}\\ (Source: https://openupresources.org/math-curriculum/)\\ 1. \frac{1}{4} + 4x = 8\\ 2. 4 + \frac{1}{4}x = 8\\ 3. 8x + \frac{1}{4} = 4 \end{array} $
Elena's method: 2(x - 9) = 10 2x - 18 = 10 2x - 18 - 18 = 10 - 18 2x = -8 $2x \div 2 = -8 \div 2$ x = -4 Andre's method:	apply the distributive property subtract 18 from each side divide each side by 2	 Match each story to an equation. A. A stack of nested paper cups is 8 inches tall. The first cup is 4 inches tall and each of the rest of the cups in the stack adds ¼ inch to the height of the stack. B. A baker uses 4 cups of flour. She uses ¼ cup to flour the counters and the rest to make 8 identical muffins. C. Elena has an 8-foot piece of ribbon. She cuts off a piece that is ¼ of a foot long and cuts the remainder into four pieces of equal length.
2(x - 9) = 10 2x - 18 = 10 2x - 18 + 18 = 10 + 18 2x = 28 $2x \div 2 = 28 \div 2$ x = 14	apply the distributive property add 18 to each side divide each side by 2	M07.D-S.3.1 (Source: <u>https://www.openmiddle.com/probability-of-rolling-two-six-sided-</u> dice/) What value(s) have a 1/12 chance of being rolled as the sum of two 6-sided dice?



Choose a different activities each day. The goal is to complete every activity in 5 days! When you complete an activity, color in the box with a light color.

7th Grade Math Choice Board: 1 Week



M07.B-E.1.1

(Source: https://www.openmiddle.com/solving-one-step-equations-greatest-solution/)





White an equation describing y as a function of y



8th Grade Math Choice Board: 1 Week

M08.B-E.2.1, M08.B-E.3.1

(Source: https://openupresources.org/math-curriculum/)



Select all true statements about the line and its equation.

- A. One solution of the equation is
- B. (3, 2).
- C. One solution of the equation is (-1, 1).
- D. One solution of the equation is (1, 32).
- E. There are 2 solutions.
- F. There are infinitely many solutions.
- G. The equation of the line is y = 14x + 54.
- H. The equation of the line is y = 54x+14.

M08.B-E.2.1, M08.B-E.3.1, M08.B-F.2.1

(Source: https://openupresources.org/math-curriculum/)

Brown rice costs \$2 per pound, and beans cost \$1.60 per pound. Lin has \$10 to spend on these items to make a large meal of beans and rice for a potluck dinner. Let b be the number of pounds of beans Lin buys and r be the number of pounds of rice she buys when she spends all her money on this meal.

- A. Write an equation relating the two variables.
- B. Rearrange the equation so b is the independent variable.
- C. Rearrange the equation so r is the independent variable.

M08.B-E.2.1, M08.B-E.3.1

(Source: https://openupresources.org/math-curriculum/)

Jada had some dimes and quarters that had a total value of 12.50. The relationship between the number of dimes, d, and the number of quarters, q, can be expressed by the equation 0.1d+0.25q = 12.5.

- A. If Jada has 4 quarters, how many dimes does she have?
- B. If Jada has 10 quarters, how many dimes does she have?
- C. Is the number of dimes a function of the number of quarters? If yes, write

a rule (that starts with d=...) that you can use to determine the output, d,

from a given input, q. If no, explain why not.

- D. If Jada has 25 dimes, how many quarters does she have?
- E. If Jada has 30 dimes, how many quarters does she have?
- F. Is the number of quarters a function of the number of dimes? If yes, write

a rule (that starts with q=...) that you can use to determine the output, q,

from a given input, d. If no, explain why not.



M08.B-E.2.1, M08.B-E.3.1 (Source: https://openupresources.org/math-curriculum/)

- A. Graph a system of linear equations with no solutions.
- B. Write an equation for each line you graph.



M08.B-E.2.1, M08.B-E.3.1 (Source: https://openupresources.org/math-curriculum/)









M08.B-E.2.1, M08.B-E.3.1, M08.B-F.2.1 (Source: https://openupresources.org/math-curriculum/)

Here is the graph of a function showing the amount of money remaining on a subway fare card as a function of the number of rides taken.



- A. What is the output of the function when the input is 10? On the graph, plot this point and label its coordinates.
- B. What is the input to the function when the output is 5? On the graph, plot this point and label its coordinates.
- C. What does point P tell you about the situation?

M08.D-S.1.1 (Source: https://openupresources.org/math-curriculum/)

A. Draw a line that you think is a good fit for this data. For this data, the inputs are the horizontal values, and the outputs are the vertical values.



B. Use your line of fit to estimate what you would expect the output value to be when the input is 10.

M08.D-S.1.1 (Source: https://openupresources.org/mathcurriculum/)

Choose a graph in this picture that you don't think belongs with the rest.

Explain why. Can you pick another graph and give a different reason?







Choose a different activities each day. The goal is to complete every activity in 5 days! When you complete an activity, color in the box with a light

8th Grade Math Choice Board: 1 Week

