15 Minutes a Day (Or so!)
Math Challenge for June

My Name: _____

Do all of these,
but skip 2 pages:

☐ page 1   ☐ page 12
☐ page 2   ☐ page 13
☐ page 3   ☐ page 14
☐ page 4   ☐ page 15
☐ page 5   ☐ page 16
☐ page 6   ☐ page 17
☐ page 7   ☐ page 18
☐ page 8   ☐ page 19
☐ page 9
☐ page 10
☐ page 11

Find a helper.

He/she helped by checking my work. (Autograph above.)

Kids: Finish this book. Then give it to
someone special.
Can I please have

_____

_____

_____

Ten hugs? Screen time?

Finish by June 30.

Feel free to finish early!

Name: _____

Ten times a number is $22\frac{1}{2}$. What is the number?

Four-fifths of a number equals 3,184. What is the number?

Two-fourths of a number equals 16. What is the number?

Forty-two more than two-thirds of a number equals 78. What is the number?

Seventeen exceeds one-fourth of a number by 13. What is the number?

Thirty-four less than 11 times a number is 65. What is the number?

Name: _____

143 exceeds two times a number by 51. What is the number?

A number minus 20 is fifty-two. What is the number?

The sum of forty-three and thirty-four is fifty-three more than a number. What is the number?

Thirty-six more than a number is ninety-seven. What is the number?

60,000 and 900,000 added to a number is 1,833,162. What is the number?

Twelve times a number, increased by four, equals eighty-eight. What is the number?

Name: _____

Get a fidget spinner! Spin it.   I needed to spin _____ time(s) to finish.

If n = 8 and c = -30 then what is 8n + 14c - 4c = ?	0.9 x 0.7	$2.9194 \times 10^4 =$
p - \$63 = \$29 What is the value of p?	10 + 15 ÷ 5	(0.4)(0.15)
2 x (48 ÷ 4) - 50 ÷ 5 =	Rewrite $\frac{1}{20}$ as a decimal.	5, 10, 15, 20, 25, _____, 35
What is the mode of the following number set? 85, 73, 85, 93, 76, 91, 80, 81, 77, 73, 87, 74	What is the area of a rectangle with a length of 52 centimeters and a width that is $\frac{1}{4}$ the length?	A circle graph has five sections. Only four sections are labeled. The labels are 31%, 10%, 9%, and 28%. What should the missing section be?

Name: _____

Ms. Floop took a photograph using an electron microscope. The small particle of metal in the picture was 0.052 inches across. She needed to provide this information to the local police department, but the fax machine was broken, and there was no internet access in the lab. She called her contact at the police station and verbally informed her of the size of the metal particle. What words did she say to describe the size of the particle? (Note: Spell the words out).

A dive team was operating on the site of a wrecked submarine off the coast of New Jersey. The equipment they were using allowed them to go as deep as 110 feet. The submarine was at a depth of 83 feet. Some of the dive team had headed back to the surface because their air supply was running low. If they were 47 feet above the submarine, how far did they have to go to get to the surface?

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15 - t + 13 = 14
What is the value of t?

(11 x 12) - 3

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y = x + 12
y = 21
What is the value of x?

You are given a set of numbers. This set has a mean and a median. Explain how the median of the set might not be a member of the set.

Cindy ate 34% of a cake,

Jennifer ate $\frac{1}{4}$ of a cake,

and Brad ate .35 of a cake.

Who ate the most cake?

The winning time at a recent Indy 200 car race was 2:38:57. If another car finished in 2:45:03, what was the time difference compared to the winning time?

Name: _____

Hannah's recipe for apple fritters makes twelve fritters and uses two-thirds of a cup of milk. Hannah wants to make four fritters. How much milk will she need?

You have collected 1,050 points in a scavenger hunt game. You need to collect 2,800 points to complete the game. Write an equation that represents the problem of finding out how many more points you need, and solve it.

The fish in tank 1 are fed every 12 hours. The fish in tank 2 are fed every 4 hours. Assuming they are both fed at the same time on one day, how many hours will it be before they are again both fed at the same time?

$|-13| - g = 15$

$g =$

58, 63, 68, 73, 78, 83, 88, _____, 98, 103

Circle the least amount:

40%

0.51

$\dfrac{4}{25}$

Mrs. Clark likes licorice tea. She can buy one box of licorice tea for $4.50. She can buy two boxes of tea for $8. How much will she save if she buys two boxes at the same time?

Megan took 69% of the money in her bank account and spent it on a weekend vacation. She originally had $170 in her bank account. Of the money she took out, she spent a third of it on food. How much did she spend on food during her weekend vacation?

Name: _____

If twenty-four and two hundredths percent of the volume of gas in a storage tank is oxygen, then all the other gases in the tank make up what percent of the volume of the gases in the tank?

If you flip a fair coin four times and it comes up heads each time, does this mean that for some reason the probability of getting heads is greater than the probability of getting tails on that particular day?

Ms. Smith is replacing the linoleum surface on a tabletop in her garage. The table is 2 feet 2 inches long and 4 feet 8 inches wide. How much linoleum does she need to cover it? _____ square inches

Computer sales at Big Company are down this year. In fact their net profit so far is -1,650,000 dollars (in other words, it is a loss, not a profit). Things are looking better for the company. In fact, Big Company just started making a profit of $151,000 per month. If the company can keep up this rate of monthly profit, how may months will it take to erase the loss plus show a net profit of at least $379,000?

What is the probability, that on two consecutive rolls of a die, first an odd number, then an even number will come up?

During the football game, Peter caught three passes. One was for a touchdown and went 59 yards. The other was for a first down and was for 19 yards. The other was on a screen pass that did not work so well and ended up a gain of -12 yards. What was the total yardage gained by Peter on the pass plays?

Name: _____

For every one million, five hundred thousand pounds of fertilizer manufactured at Bigearth, Inc., about 400 pounds are ruined by being accidentally left out in the rain. Last month, 200 pounds were ruined. Based on this information, estimate how many pounds of fertilizer were manufactured last month. Round your answer to the nearest whole number if needed.

If 83 out of 100 grasshoppers are immune to a pesticide after five years of use, how many would be expected to be immune in a population of 2.2 million after five years of use?

In examining a series of sediment layers in a canyon near the new BigTown geodesic dome, Jason has been studying many layers of shale. He recently mapped all 18 of them. If a third of the layers are more than 300 million years old, how many layers are younger than 300 million years?

How many one foot square tiles are needed to cover a kitchen floor if the kitchen is nineteen feet long and eight feet wide?

Maria just finished painting the smallest wall in her room. It took her 1 hour and 40 minutes and she was able to paint at a rate of thirty-nine square feet per hour. If the wall is eleven feet long, how tall is it? Round your answer to the nearest foot.

David bought a die at the magic shop. He rolls it 159 times and gets the following results. A 1 sixteen times, a 2 twenty-two times, a 3 twenty-eight times, a 4 thirty-one times, a 5 twenty-nine times and a 6 thirty-three times. What is the probability he will get a 6 on the next roll?

Name: _____

A soil sample from Mr. Bloop's farm was sent to the county agriculture department for analysis. It was found to consist of 23% sand, 22.8% silt, 29.1% clay, 4% gravel and the rest was humus. What percent of the sample was humus?

A sample of ore is found to be 0.0041% gold and 0.07% silver. What is the percent of matter in the ore that is neither gold nor silver?

Kevin measures the lengths of six fossil mosquitoes preserved in amber. Their lengths are 2.3, 3.6, 1.4, 2.3, 2.4, and 3.6 mm. What is their average length? Round your answer to the nearest thousandth.

Mr. Bloop live-trapped mice near his barn for several nights in a row. They were eating the chicken feed stored there. On 4 consecutive nights, he trapped 11, 12, 10, and 5 mice. What was the average number of mice caught per night? Round your answer to the nearest whole number.

Sara is very competitive. She always makes it her goal to beat everyone else's race time by at least three percent. She had a great race this week (she won) and met her goal. If the person who came in second had a time of 1 hour and 33 minutes, what would have been the slowest time Sara could have run the race? Round your answer to the nearest minute.

Work against the acceleration of gravity is a function of the force applied times the distance moved (W = Fd). A force of 61 N is applied to lift an object 1.2 meters into the air. How much more work is done (in terms of percent) if the object is lifted to a point 4.3 meters in the air? Round your answer to the nearest hundredth of a percent if needed.

Name: _____

A class grew 50 carrots in sand and 50 in clay. After 6 weeks of growth they compared the plants to see which soil condition allowed the most root growth. The 50 from the sand had a total mass of 21.9 g and the 48 from the clay (2 died) had a mass of 18.7 g. What was the average root mass per plant from each of the experimental groups? Round your answer to the nearest thousandth of a gram.

The ratio of indoor basketballs to outdoor basketballs at the Megalopolis recreation center is 5:4. If the rec center has 41 basketballs, how many of them are indoor basketballs?

Chef Jason was very particular about the ingredients he used in his pizzas. He even ordered the mozzarella directly from Italy. His favorite mozzarella was Mozzarella di Bufala, made in Campania. It costs $9.90 per pound. He used a third of a pound of this very special mozzarella on each pizza. If Chef Jason made forty-five pizzas with the Mozzarella di Bufala, how much would that amount of cheese cost?

In examining a series of sediment layers in a canyon near the new BigTown geodesic dome, Alex has been studying many layers of shale. He recently mapped all 24 of them. If half of the layers are more than 300 million years old, how many layers are younger than 300 million years?

Adam measured the mass of a solid he obtained after crystallizing an organic compound from ice cold water. The last time he did the experiment he obtained 11 grams of crystals. This time he obtained four times that much but lost two grams by accident. How many grams did he finally have at the end of today's experiment?

Molecule X is formed at a rate of 12.2 billion molecules per second. Chemical Y is formed at a rate of 7.6 billion molecules per second in the same flask. How many more molecules of type X would be formed after 5.7 seconds?

Name: _____

There are 3 prime numbers greater than 22 but less than 32. Name them.

Rosa is mapping out an imaginary trip from point (-12, 5) to (9, 5). She spent 9 days there.

Then she went to point (9, -1). If 1 unit = 150 miles, how many total miles did she travel in all?

Name: _____

A rectangle is eleven and four-fifths centimeters long. Its width is five and three-fourths centimeters. What is the perimeter of the rectangle?

On a map, 0.6 inches is equal to 4 miles. Nathan wants to go from where his house is to a soccer field hosting a tournament that is 2.4 inches away. How far is the actual distance from his house to the soccer field?

Anne had to put new price tags on some pants. All the pants used to be $20, but her boss said to increase the price by 80%. She did. When she came back to work the next day, her boss said that a mistake was made. She was asked to reduce the new price by 80%. Will the new price be back to $20 or something different?

Mary and her 3 friends played basketball together. Altogether they averaged 10.9 points per game. If Hannah averaged 10.7, Rose averaged 11.8, and Sarah averaged 7.5 points, then how many points did Mary average?

Name: _____

Draw 3 pictures in the correct order. Use each of the clues so you will know what to draw.

Draw 1 of these 3 pictures.
The picture is NOT in the correct spot.
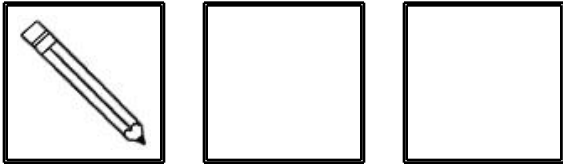
Draw 1 of these 3 pictures.
The picture IS in the correct spot.

Draw 1 of these 3 pictures.
The picture IS in the correct spot.

Draw 2 of these 3 pictures.
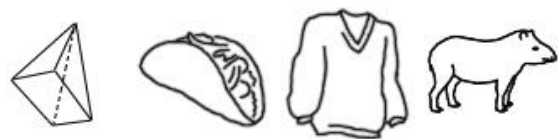The pictures to use are in the correct spot.

Draw the 3 pictures in the correct order:

Draw 4 pictures in the correct order. Use each of the clues so you will know what to draw.

Draw 1 of these 4 pictures.
The picture IS in the correct spot.

Draw 1 of these 4 pictures.
The picture is NOT in the correct spot.

Draw 1 of these 4 pictures.
The picture IS in the correct spot.
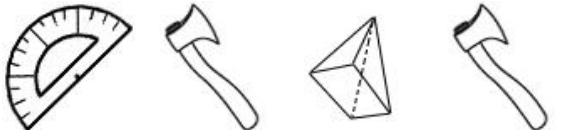
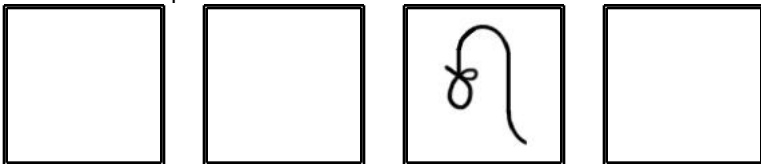Draw 1 of these 4 pictures.
The picture IS in the correct spot.

Draw 1 of these 4 pictures.
The picture is NOT in the correct spot.

Draw 3 of these 4 pictures.
The pictures to use are in the correct spot.

Draw the 4 pictures in the correct order:

Name: _____

Fill in each box of the edHelperKu puzzle, using the numbers from 1 to 6.

Every row must contain the numbers 1, 2, 3, 4, 5, and 6.

Every column must contain the numbers 1, 2, 3, 4, 5, and 6.

In a cage with a plus sign, the given number will be the sum of all the digits in the cage.

11+	13+			9+	
	7+		22+		1
14+	3+	6+	6	4	
					4
		14+	2	14+ 5	
				3	

Fill in the blanks. These equations are from the puzzle above.

___ + 4 + ___ = 13

3 + ___ = 7

___ + 2 + ___ + ___ = 14

___ + ___ + 1 + ___ = 9

___ + 5 = 6

___ + 6 + ___ + ___ + ___ = 22

5 + ___ = 11

2 + ___ = 3

5 + ___ + ___ = 14

3 + ___ + ___ + ___ + ___ = 14

Name: _____

Fill in the missing numbers. How? The sum of the four surrounding numbers is in the center of each square.

Exactly one of the four numbers has to be one of these numbers: $6\frac{1}{2}$, $2\frac{3}{4}$, or $1\frac{2}{3}$.

The other three numbers have to all be DIFFERENT and must be from these: $4\frac{1}{2}$, $\frac{1}{2}$, $5\frac{1}{2}$, or $7\frac{1}{2}$.

	$5\frac{1}{2}$				$7\frac{1}{2}$			
$7\frac{1}{2}$	$16\frac{1}{4}$	$\frac{1}{2}$	$16\frac{1}{4}$		$16\frac{1}{4}$	$\frac{1}{2}$	$15\frac{1}{4}$	$4\frac{1}{2}$
	$2\frac{3}{4}$							
	$15\frac{1}{4}$		20		$15\frac{1}{6}$			
	$20\frac{1}{4}$		24		20		20	
	$16\frac{1}{4}$		$20\frac{1}{4}$		$13\frac{1}{4}$		$15\frac{1}{6}$	
	$12\frac{1}{6}$		$14\frac{1}{6}$					

Name: _____

Get a fidget spinner! Spin it.   I needed to spin _____ time(s) to finish.

Simplify.

$$\frac{19,600}{24,500} =$$

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(81) , (27) , _____ ,

(3) , (1) , $\frac{1}{3}$, $\frac{1}{9}$, $\frac{1}{27}$,

$\frac{1}{81}$

$2 \times 2 = Z^y$

What is the value of Z

and y?

Rewrite as an algebraic expression or equation.

Add v to the product of 12 and 4

The angles in a

quadrilateral

measure $97°$, $99°$, $115°$,

and $b°$. What is the

value of b?

What is the prime factorization of 27?

$4 + 4 \cdot 11 + 4$

$t - 7 + t = 27$
What is the value of t?

$(2 + 17) + 9 = 2(v + 12)$

What is the value of v?

$|-7| + v = 3$

v =

$3 \times 99 \div 9 - 42 \div 6 =$

In what quadrant would you find the point (-1, -6)?

Name: _____

	+	x	+	=
+	C	A	C	?	108
+	A	B	A	C	82
=	A	B	B	A	95
	26	25	28	31

Equations and Hints:

Each letter is a whole number.

Fill in the equations using the chart:

A + B x B + A = 95   A + B x A + C = __

__ + __ + __ = 26   __ + __ + __ = 25

__ + __ + __ = 28

Additional hints:

C < 20   C = B + 3

Solve:

? = __

Name: _____

Ms. Floop had 1011 eggs to package. She can fit two dozen into a pack. How many eggs will be left after she fills as many complete packs as she can?

You are offered one of two "black boxes" that can increase or decrease the length of any object. One box operates in multiples of two and the other operates in multiples of eight. Which would be the better choice? Explain.

Jacob's bike has a small frame. The distance between the wheel centers is 31 inches. If the bike has 15-inch diameter tires, how long is it from the front of one tire to the back of the other?

$2 \times 2 = x^2$

What is the value of x?

Rewrite $\frac{8}{25}$ as a decimal.

$0.1 \cdot 5 =$

Anna has 5 toe rings, 4 bracelets, and 3 finger rings. If she wants to wear one of each, how many different combinations can she choose from?

If you distribute something to a group, you give out one or more of each of that thing to each member of the group. In the expression 3x + 11x, what is being distributed?

The probability of a person being diagnosed with some type of cancer in his or her lifetime is about $\frac{1}{3}$. Of the approximately 79,000 people living in Smallville today, about how many would be expected to contract some form of cancer?

Name: _____

3,000 and 200,000 added to three-fourths of a number equals 254,237. What is the number?

Negative five times a number is negative one hundred twenty-five. What is the number?

The sum of thirty-seven and negative forty is negative sixty-five more than a number. What is the number?

Forty less than four-sixths of a number equals 104. What is the number?

A number multiplied by -7 is 68.6. What is the number?

3,989 and 1,767 added to the difference between 519 and half of a number is 6,024. What is the number?

Name: _____

One hundred ninety-nine less than a number is negative one hundred eleven. What is the number?

Thirty less than a number is negative ninety-one. What is the number?

The sum of a number and $12 \frac{4}{5}$ is $20 \frac{3}{10}$. What is the number?

Ten times a number, decreased by 138.89, equals 1.11. What is the number?

5,000 and 8,000,000 added to a number is 8,902,140. What is the number?

One-sixth of a number, increased by 18 is 29. What is the number?