## MONTHLY MATH CHALLENGE

## Homework

## April



My Name:

| Do all of these, | $\square$ page 10 | $\square$ page 22 |
| :--- | :--- | :--- |
| but skip 2 pages: | $\square$ page 11 | $\square$ page 23 |
|  | $\square$ page 12 | $\square$ page 24 |
| $\square$ page 1 | $\square$ page 13 | $\square$ page 25 |
| $\square$ page 2 | $\square$ page 14 |  |
| $\square$ page 3 | $\square$ page 15 |  |
| $\square$ page 4 | $\square$ page 16 |  |
| $\square$ page 5 | $\square$ page 17 |  |
| $\square$ page 6 | $\square$ page 18 |  |
| $\square$ page 7 | $\square$ page 19 |  |
| $\square$ page 8 | $\square$ page 20 |  |
| $\square$ page 9 | $\square$ page 21 |  |

Find a helper.

He /she helped by checking my work.


Name: $\qquad$
SALLY'S GOOD FOOD RESTAURANT

| Regular Burger | 5.25 |
| :--- | :--- |
| Super-Sized Burger | 3.95 |
| Burger Jr. | 2.50 |

Chicken Nuggets $\quad 4.25$
Crispy Chicken Sandwich 7.30

French Fries
2.25

Onion Rings $\quad 1.75$

Cool Dude Meal
Mac and Cheese

Water
1.25

Juice 1.35

Lemonade $\quad 1.50$

John and Billy went to Sally's Good Food Restaurant. They each ordered a regular hamburger. John got a side mac and cheese with juice. Billy wanted fries and the Cool Dude meal along with water. The food was so good, and they had such a great time that they didn't realize the waiter already left a bill.
"I'll pay," said John. He left exactly enough money for the food along with a $20 \%$ tip for the waiter.
How much money did he leave?

Show your work.

Name: $\qquad$
Jenny has been trying to get a summer job. Her brother said he could use help with cutting people's grass. He offered to pay her 30\% (He'd keep 70\%.) of lawns they cut. "How much is that?" asked Jenny.
"Well, I cut about 3 or 4 lawns in a day. With your help maybe we could do 6 , and I charge $\$ 20$ per lawn."
She also went into town and put in an application to work at Charlie's Ice Cream Shop. The shop pays $\$ 6.50$ an hour.
Jenny is not sure which job to take. Offer her some advice on what she should do. Think what you would do before giving advice.

Figure out the difference in pay between the two jobs. Would you ONLY consider pay to decide?
$\square$
Name: $\qquad$
This number is so cool. The tenths place is twice its tens. The ones place is 3 less than its hundredths. The sum of its digits is 19. What's the cool number?
$\qquad$

Which number has more factors: 19 or 27 ?

Bob, the donut guy, is working on a new type of donut called the 1.3-ounce sugar mini donut. Each donut weighs precisely 1.3 ounces. About $\frac{7}{20}$ of the donut consists of milk, yeast, flour, and eggs. The rest of the donut is sugar. Yum! How many ounces of sugar is needed for each donut?
$\square$
Name: $\qquad$
Fairy tale author Hans Christian Andersen was born on April 2, 1805. He wrote 168 fairy tales for children. Andersen published The Princess and the Pea in 1835, 40 years before he died. What percent of his life had he lived when he published this famous fairy tale?

Show your work.

Name:
This fraction is equivalent to $\frac{1}{2}$. The sum of the digits in the denominator is 3 . The sum of the digits in the numerator is 6 . What is this fraction?

Amanda is 2 times as old as Emily. In 7 years, the sum of their ages will be 50 . How old is Emily?

I am a 3-digit number with a 2 in the tens place. My ones digit is greater than my hundreds digit. Write any number that fits this.
$\square$
Name:

| 38 | $+\frac{1}{3}$ |  |  | +5 |  | +36 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 37 +54  $+\frac{1}{2}$  +2  <br>  $-\frac{2}{3}$ $114 \frac{1}{3}$ $+4 \frac{1}{2}$  $-\frac{2}{3}$  <br> +26       <br> $139 \frac{2}{3}$ -22  $+1 \frac{1}{2}$ $119 \frac{1}{6}$ +15  |
| :--- |
| \begin{tabular}{\|l|l|l|l|l|l|l|}
\hline
\end{tabular} |

edhelper.com/math_grade6.htm
$\square$
Name: $\qquad$
On April 2, 1513, Ponce de Leon landed at St. Augustine, FL, the oldest city in the continental U.S. On April 26, 1607, Jamestown, VA, was founded, making it the second oldest city in the continental U.S. There are 654 miles between the two cities.
If the average speed limit for 350 miles is 70 mph , and the average speed limit for the rest of the trip is 65 mph , how long will it take to drive from St. Augustine to Jamestown? Round your answer to the nearest tenth.

Show your work.

Name: $\qquad$
What is the greatest
common factor of the
numbers 56 and 126 ?
$\mathrm{D}, \mathrm{H}, \longrightarrow \mathrm{P}, \mathrm{T}, \mathrm{X}$
What is the remainder of 108 divided by 19?
What is the value of $g$ ?
$5 g+16-4 g=-7$


$$
\begin{aligned}
& \frac{2}{m}+\frac{1}{5}=\frac{13}{15} \\
& m=
\end{aligned}
$$

Use >, <, or = to complete.
$\frac{3}{10}-39 \%$
$\frac{2}{3}-35 \%$
$24 \%-\frac{1}{11}$
$1-15 \mid-d=21$
$d=$

$\dagger-8+\dagger=36$
What is the value of $t$ ?
$9 \times 9=x^{2}$
What is the value of $x$ ?
Rewrite $\frac{8}{25}$ as a decimal.
$11 \mathrm{v}-18.5=62.9$
$v=$
$2+(39 \div 3)-35 \div 5=$

Name: $\qquad$

| Simplify. |
| :--- |
| $\frac{36}{48}=$ |
|  |

$11 z-11.1=87.9$
$z=$
$(6+14)+6=2(2+11)$

91, 113, 82, 100, 73, 87 ,

$$
\begin{aligned}
& 7 \times 7=7^{x} \\
& \text { What is the value of } x ?
\end{aligned}
$$

48, 37, 35
$8-33 \div 11$

Circle the greatest amount: 28\%
0.34
$\frac{9}{25}$

Rewrite as an algebraic expression or equation.

Add 22 to the product of $s$ and 9

| In what quadrant would |
| :--- |
| you find the point $(-11,5)$ ? |
| $3+8 \cdot 3+10$ |
| $-53 \mid+[3\| \|=$ |

If $\mathrm{n}=8$ and $\dagger=-40$ then what is $6 n-14 t-3 t=$ ?

Rewrite $\frac{9}{20}$ as a decimal.
$\qquad$

| Puzzle: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | Qe, | 9 ${ }^{0}$ | (6) | 560 |
| $\bigcirc$ | (6) | 9 | 9 | 4,536 |
| 晹 | 5 | (10) | 达 | 320 |
| E-6 | 9 | $\bigcirc$ | $\bigcirc$ | 2,205 |
| 490 | 1,440 | 1,008 | 2,520 | X |

The product for each column and row is given. Blanks use numbers 2 to 9 only.
$\infty=$
Work Area:

|  |  |  |  | 560 |
| :--- | :--- | :--- | :--- | :--- |
|  |  | $\mathbf{9}$ | $\mathbf{9}$ | 4,536 |
|  |  |  |  | 320 |
|  | $\mathbf{9}$ |  |  | 2,205 |
| 490 | 1,440 | 1,008 | 2,520 | $\mathbf{X}$ |

Name: $\qquad$
Mr. David has created a new machine that uses water, corn, bananas, and mashed potatoes and it can make curly popcorn.
Yummy!
He can make five and three-quarters cups of popcorn with his machine every thirty seconds. He wants to try to make a hundred cups for a party. Assuming his machine will last (Don't worry, it won't!!, how long do you think this will take?
Let's give him a two-minute break every twelve minutes.

Show your work.

Name: $\qquad$

In 2005, Hailu Negussie of Ethiopia won the Men's Open with a time of 2:11:45. Catherine Ndereba of Kenya won the Women's Open with a time of 2:25:13. How much faster was Negussie's time?

Sammy Shark bought three programs for the floor show for $\$ 24.6$. If his brother Sal bought seven programs at the same price per program, what would the total cost be?

Kevin added the number of edges on a triangular prism to the number of vertices on a cube. What was the sum?

Name:
Robinson Crusoe spent a lot of time exploring his island. He walked $6.8,5.6,9.2,5.4,8.6,9.5$, and 5.2 kilometers during his first week. What was the average distance he walked each day? Round your answer to the nearest tenth.

At the Barbeque Day cookout at the Yellow Hill Community Center, $\frac{1}{4}$ of the people had chicken, $\frac{1}{3}$ had pork, and the rest had beef. What percent of the people had beef?

Jen is really into science. She invented a robotic bug that burps. Her brother loves it, so she wanted to burp her brother today. She checked her phone, and her brother is currently 1.6 miles away. After she set the coordinates on the phone the robotic bug left. She got a burp confirmation 145.6 seconds later when it reached her brother. How fast did this burping bee travel in miles per hour?

There are 2 prime numbers greater than 23 but less than 33 . Name them.

Name: $\qquad$


Write your own math problem here.

Ask the person who helped you to try to solve your problem.
$\square$
Name:

$m+32=42$
What is the least common multiple of 8 and 4 ?

What is the greatest common factor of 8 and 14?

Name:

Sarah is playing "Penguin Parade" with her best friend. The spinner for the game has ten spaces. Five of the spaces have two penguins on them. The rest have one penguin on them. On Sarah's first spin, what is the chance the pointer will stop on a space with one penguin?

Kevin ate $\frac{4}{5}$ of his dessert at the Celebrate! Day party. Andy ate $\frac{1}{2}$ of his dessert. Which boy ate more of his dessert?

Max wants to have fun on National Splurge Day. He is going to the Fun Park. He wants to ride the Terror Train 24 times! The Terror Train ride lasts 2 minutes and 6 seconds. If he rides it 24 times, how many minutes will he spend on the Terror Train?


Name:
Directions:
Use the rule that
1 human year $=7$ dog y
to fill in the blanks.
Spin fidget spinner. Quick!


I needed to spin
Human Years: $\frac{16 \frac{1}{12}}{}$
Dog's Age:
Human Years:
Dog's Age: $\frac{21 \frac{7}{12}}{}$

Human Years: $\frac{15 \frac{9}{12}}{}$

Dog's Age: $\qquad$ Human Years: $\frac{10 \frac{1}{12}}{}$
Dog's Age:

Human Years: $1 \frac{1}{6}$

Dog's Age: $\qquad$
Human Years: $\frac{2 \frac{7}{12}}{}$
Dog's Age: $\qquad$
Human Years: $\frac{2 \frac{7}{12}}{}$
Dog's Age:
$\square$

| Human Years: $\qquad$ <br> Dog's Age: $\qquad$ $30 \frac{11}{12}$ |
| :---: |
|  |  |


| Human Years: | Human Years: |
| :---: | :---: |
| Dog's Age: 93 | Dog's Age: $40 \frac{3}{12}$ |

Name: $\qquad$
Pay the bill!

Justin received a bill from Central Water for \$136.31. Write the check as Justin would write it.

JUSTIN
1046
DATE

PAT TO THE $\qquad$ \$ $\square$

DOLLARS

MEMO


JUSTIN
DATE
earroyt ORDER OF

\$ $\square$

DOLLARS

MEMO $\qquad$

॥•597日 2॥
047

Write $\frac{4}{12}$ in lowest terms.

Know how many inches in a foot? Okay, smarty pants, how many inches in 7 feet?

How many meters are there in 190 kilometers?

How many minutes is it from 8:00 a.m. to 10:55 a.m.?

How much money is 1 quarter, 1 dime, 1 nickel, and 4 pennies?

Name: $\qquad$
Pay the bill!

Rent is due. Adam needs
to pay his landlord $\$ 3,600$. His landlord's name is Mary Taylor.

ADAM
1043
DATE
 ORER Of $\qquad$ \$ $\square$

DOLLAARS

MEMO



Pay the bill!

Adam needs money. He wants to get $\$ 100$ in cash, so he writes a check payable to cash in this amount. Write this check.

ADAM
1044

## DATE

## PAY TO THE ${ }_{\text {ORLER of }}$


\$ $\square$

DOLLARAS

MEMO $\qquad$



9, 11, 13, $\qquad$ 17, 19,

21, 23, 25


How much money is 1 quarter, 1 dime, 3 nickels, and 1 penny?

Find the product of 796 and 8.

Round the decimal 0.465 to the nearest hundredth.

Name:
Rewrite this mixed number as an improper fraction.

$$
14 \frac{9}{10}
$$

Rewrite these numbers in order from greatest to least.
-6
-7.8
-7
-7.802
-7.9

The area of a square is 44.89 square inches. What is its perimeter?
$\square$
Name:
Use any of these digits. Cross off a digit after you use it.
4
2
2
7
3

Write the smallest negative 3-digit number that you can come up with. Remember that - 82 is smaller than -8 .

Use any of these digits. Cross off a digit after you use it. You do not need to use all of the numbers.

## 7 <br> 4 <br> 1 <br> 1 <br> 3

The product of a 2 -digit number and a 1 -digit number is 91 . Write the equation.
Round 14,509 to the
nearest thousand.

> fact.
> $105 \div 15=7$
> $105 \div 7=15$
> $7 \times 15=105$

Write the missing family

Name:

Gavin and Justin are playing a new game. The game uses some special cards and a complex scoring system.
The exact scoring system is not important for the purposes of this question. Gavin has cards worth 6, 7, 4, 9 , and 4 points respectively. Justin has the same number of cards, but his cards add up to three points more than Gavin's cards. If Justin has cards worth $10,5,7$, and 10 points, what must his other card be worth?

Anne is monitoring the aircraft that fly over her house on their way to land at the local airport. Over the course of the week she counted 28 two-engine jets, 36 propeller driven planes, and 34 four-engine jets. Based on her data, what is the probability that the next aircraft to fly over will be a propeller driven plane?

Geotest, Inc. drilled a hole in a granite batholith that was 931 meters deep. Globomax, Inc. drilled one in the same formation that was 1102 meters deep. What was the difference between the depths?

Jacob has forty-one square stickers of different colors that each measure three inches on a side. He wants to use them to cover the fronts of some notebooks he has. If his notebooks measure nine inches by twelve inches, how many whole notebook fronts can he completely cover with the stickers?

There are 4,231 spectators at the wildcats' game. The weather is rather bad, so this is not even close to the attendance record for the stadium. In fact the attendance record is greater than the day's attendance by 1,931 . What is the attendance record?

The Floop family went to a hockey game last weekend. They spent $\$ 12$ on food, $\$ 32$ on souvenirs, and $\$ 8$ on drinks. What fraction of their expenditures was spent on drinks?

## Name:

For this page calculate a dog's life as follows:

First year of dog's life is 15 human years.

Second year of dog's life is 9 human years.

Every other year of dog's life is 5 human years.

Spin fidget spinner. Quick!
Dog's Age: 59
Human Years: 9

Dog's Age: 74
Human Years: $\qquad$

Dog's Age: 24
Human Years: $\qquad$

Dog's Age: $\qquad$
Human Years: 10

Dog's Age: $\qquad$ Human Years: $\qquad$

Dog's Age: $\underline{69}$
Human Years: $\qquad$

Dog's Age: $\qquad$ Human Years: 11 Dog's Age: 15 Human Years: $\qquad$ Dog's Age: 59

Human Years: $\qquad$

Dog's Age: $\qquad$ Human Years: 6

Dog's Age: 29
Human Years: $\qquad$

Dog's Age: $\qquad$
Human Years: 5

Dog's Age: 39
Human Years: $\qquad$


Dog's Age: 54
Human Years: $\qquad$

Dog's Age: 29
Human Years:


Dog's Age: $\qquad$
Human Years: 4

Dog's Age: 74 Human Years: $\qquad$

Dog's Age: $\qquad$ Human Years: $\qquad$

Dog's Age: 49 Human Years: $\qquad$

Name: $\qquad$
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.
In a cage with a subtraction sign, the given number will be the difference. The largest number will always be the box with the clue.


Fill in the blanks. These equations are from the puzzle above.
$\qquad$ $-4=2$
$\qquad$

$$
-1=2
$$

$\qquad$
$\qquad$ $+5=14$

$$
5-\ldots=2
$$

$3+\ldots=8$
-
$+3+$ $\qquad$ $=9$

Name:

Alexandra has pennies, nickels, dimes, and quarters. She has a total of \$10.09. She has twenty fewer quarters than dimes and thirteen more pennies than nickels. She also has nine fewer quarters than pennies and four more quarters than nickels. How many of each coin does she have?

Danielle has budgeted to spend three times more on food than on entertainment. She also wants to spend three times more on rent than on food. If she has $\$ 1,066.29$ to spend, what is the most she can spend on rent?

The sum of two consecutive integers is $-5,409$. What are the integers?

Hannah's investment of 100 shares of UGJ has lost 15\% of its value this year. The investment is now worth $\$ 1,445$. How much was the original per share cost that Hannah paid for UGJ?

## The sum of the

 reciprocals of two numbers is $\frac{5}{27}$. The second number is nine times larger than the first number. What are the two numbers?


