

Name: $\qquad$
Emily just started a job using her bicycle to pick up groceries and deliver them to people in her neighborhood. Once a grocery order is placed on DriveFoodApp, Emily will go pick up the groceries and then deliver them. She has to pay the DriveFoodApp 20\%. If the delivery fee is $\$ 50$, then Emily has to give the DriveFoodApp company 20\% of that. She gets to keep the rest. Today, she had time to do 5 deliveries. The delivery fees were $\$ 15, \$ 12, \$ 20, \$ 18$, and $\$ 22$.
"Don't forget sometimes people tip," adds Emily. "And I get to keep the entire tip."
Oh. Sorry! She got tips of $\$ 2, \$ 3, \$ 5, \$ 10$, and $\$ 1$.
How much money did Emily make on deliveries today?

Show your work.

Name: $\qquad$
Only use a pencil to write the numbers on the blank lines. You do not need any scrap paper! Solve it in your head. If you forget a number, then start over. Cool, huh?


| imagine 5 in your <br> head <br> add 4 <br> multiply 10 | imagine 6 in your <br> head <br> subtract 5 <br> add 5 <br> multiply 11 <br> add 4 <br> double it |
| :--- | :--- |
| $\frac{\text { Write the tens digit. }}{}$ | Write the hundreds <br> digit. |


| imagine 8 in your <br> head <br> add 6 <br> double it <br> subtract 8 |
| :--- |
|  |
| Add the tens digit to |
| the ones digit. |
| Write the sum. |
|  |


| imagine 5 in your |
| :--- |
| head |
| multiply 3 |
| double it |
| add 4 |
|  |
| Add the tens digit to |
| the ones digit. |
| Write the sum. |
|  |

imagine 5 in your head
multiply 3
double it
add 4

Add the tens digit to the ones digit.
Write the sum.

D

What is the sum?

$$
A+B+C+D
$$

## Wow! Great job! That's the answer, but do you know how to SPELL the number?



5 after 16 $\qquad$

7 after 11 $\qquad$ -

3 after 14 $\qquad$ 2 before 17 $\qquad$

Name:

What a sour face Mary made! She wanted to buy a new dress, but she only has $\frac{1}{3}$ of the money she needs. If she has \$30.27, how much does the dress cost?

If $z=-8$ and $t=24$ then what is $7 z-10 t-2 t=$ ?

Emma had $\$ 15$ for lunch each week. If she bought the standard hot lunch each day (for 5 days) at $\$ 2.45$, how much money would she have left over at the end of the week?

Painter Bears, tiny stuffed bears in rainbow colors, are sold in sets of three. If three of the bears cost $\$ 8.98$, how much would 15 of the bears cost?
$448 \div 10$
What is the greatest common factor of the numbers 39 and 117?

According to the New York Police
Department, there were $42.8 \%$ fewer burglaries committed in Brooklyn in 1997 than in 1993. In 2003, there were $72.2 \%$ fewer burglaries committed than in 1993. What was the percentage of change between 1997 and 2003?

It took Amy 458
minutes to read a book written by James Thurber. How many hours did it take to read the book?

Adam rolled a number cube labeled 1 to 6 . If he rolled any number divisible by 3 , he would win the Summer Fun game. What is the probability he won the game?

Name:

Mr. Allen used 144 tiles to cover the floor of his music shop. If the room is square, how many tiles are in each row?
$(3+15)+6=2(4+8)$

Jack made a wooden chest for his mother's notary public seal, stamp, stamp pad, and book. The inside measurements of the chest were twenty-one inches by eight inches by nine and nine tenths inches. What is the volume of the chest?
$24-12+\dagger=27$
What is the value of $t$ ?

Ms. Lee packs bags of pretzels into boxes. Each box holds 24 bags. There are 5 boxes in a case. Today Ms. Lee packed 21 cases of pretzels. How many bags of pretzels did she pack?

If $a=4$ and $b=65.9$, then
$2 a+65.9-a=$

Miss Martin bought a shiny red car - just because. The price of the car was \$19,914.99 plus 5\% tax. She also had to pay $\$ 95.51$ for the registration and tag. How much did Miss Martin pay in all?

Hunter wanted to sleep for $13 \frac{3}{4}$ hours. He went to bed at 9:34 p.m. and woke up at 8:10 a.m. How much less than $13 \frac{3}{4}$ hours did he sleep?
$5 \times 5 \times 5=x^{3}$
What is the value of $x$ ?

Mr. Miller teaches English at Union High School. This week his students are writing limericks to share on Limerick Day. He teaches 4 classes of 31 students each. A third of his students are freshmen. How many are not freshmen?
$y=x+15$
$y=22$
What is the value of $x$ ?
$\qquad$


The product for each column and row is given. Blanks use numbers 2 to 9 only.


Work Area:

|  |  |  |  | 1,344 |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | 1,764 |
|  |  |  |  | 168 |
|  |  |  |  | 324 |
| 672 | 1,764 | 864 | 126 | $X$ |

The product for each column and row is given. Blanks use numbers 2 to 9 only.

$=$


Name:
It was Mrs. Johnson's birthday, and she made her favorite homemade cookies to share with the class.
"I hope you all enjoy my homemade cereal crunch cookies. I used a mixture of different cereals to make this. Unique!" says Mrs. Johnson as she saw Joshua raise his hand. "But don't worry! They are all nut free."
The class LOVED them. In no time at all the class ate five-sixths of the cookies.
"Mrs. Johnson," said Hannah, "you need to do OUR tradition. While we sing happy birthday, you need to eat as many cookies as you can."
As the class began to sign, that is just what Mrs. Johnson did. And she was good at it! She ate three-fourths of the cookies that were left. In case you are curious, that was equal to 3 cookies! How many cookies did Mrs. Johnson bring to class that day?

Show your work.
$\square$
Name:
Cross off the number that does NOT belong.

$$
\begin{gathered}
\frac{1}{243}, \frac{1}{81}, \frac{1}{27}, \frac{1}{9}, \frac{1}{3},(1), \\
(2),(3), \\
(9),(27)
\end{gathered}
$$

$\qquad$ not belong in the pattern?

Cross off the number that does NOT belong.

$$
\begin{gathered}
\frac{4}{16}, \frac{8}{16}, \frac{12}{16}, 1,1 \frac{4}{16}, 1 \frac{8}{16}, 1 \frac{11}{16}, 1 \frac{12}{16}, 2, \\
2 \frac{4}{16}, 2 \frac{8}{16}, 2 \frac{12}{16}, 3,3 \frac{4}{16}, 3 \frac{8}{16}, 3 \frac{12}{16}, 4
\end{gathered}
$$

Why does $\qquad$ not belong in the pattern?
$\square$
Name:
Alex and Maria are a team. Alex makes robots, and Maria fits them for fancy robot clothes. They have two models. Model One is very small at only 8.4 inches. The other is bigger, but Alex only gave Maria a calculation as the robot is still in production. Alex wanted it to be 3 times the size of Model One, but it turns out the prototype is 8.4 inches shorter than that. How big is the prototype?

Write as a fraction in simplest form.

$$
\begin{aligned}
& \frac{3}{4}+\frac{2}{5}+\frac{1}{10}= \\
& \frac{4}{7}+\frac{1}{2}+\frac{1}{14}= \\
& \frac{1}{6}+\frac{7}{8}+\frac{3}{4}=
\end{aligned}
$$

Name: $\qquad$
Mental break. Time to use a pencil for this more challenging page. Good luck! This puzzle has a large number in the middle, which is the sum of the four numbers that surround it.

## Example:

$$
31+(-46)+49+33=67 \quad 37+(-37)+33+17=50
$$



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: $-32,-37$, or -46 .
The other three numbers have to all be DIFFERENT and must be from these: 37, 33, $31,19,49$, or 17.

$\square$
Name: $\qquad$
The area of a square is 53.29 square inches. What is its perimeter?


How many meters are there in 18 kilometers?

12, 14, 16, 18, 20,
Round 14,605 to the nearest thousand.

| $1 \mathrm{~cm}=10 \mathrm{~mm}$ |  |  |
| :--- | :--- | :--- |
| $28 \mathrm{~cm}=\ldots \mathrm{mm}$ | $45 \div 5=\ldots \times 9=\square$ |  |
|  |  |  |

Name:
In art class the teacher asked the class to make a rectangle.
"How big?" asked Jessica.
Mrs. Jones is not just the art teacher, but she is also the math teacher. She loves to talk numbers! "Well," she started. "I don't want to give you the exact size, but the ratio of the height to width of your drawing should be 2 to 5 . And please don't do 2 inches to 5 inches.

I've already done that!"
Jessica wants to draw the rectangle. She wants to use as much of her $24 \frac{1}{2}$ by 7 paper as possible. What size should she draw the rectangle?
$8 \div \frac{1}{9}$

It's 8:00 a.m. and Maria is getting ready for soccer practice. If practice starts at 6:50 p.m., then how much longer until soccer starts?

How many meters are there in 128 kilometers?

## Draw a number line

 with $0, \frac{1}{2}$, and 1 . Show where $\frac{3}{8}$ would go. Is $\frac{3}{8}$ closer to $0, \frac{1}{2}$, or 1 ?How much time is it from 6:00 a.m. to 10:15 a.m.?

How much money is 1 quarter, 1 dime, 7 nickels, and 1 penny?

Name:
The length of the main room at the Robert Burns Library is 35.6 feet. The width of the room is 28.2 feet. How many square yards of carpet will be needed to cover the entire floor? Round your answer to the nearest tenth.

Ava spent $\$ 27$ buying 5 old radios at the flea market. She paid $\$ 4.40$ for one radio and $\$ 5.15$ each for two more radios. If the other two radios cost the same, how much did she spend on each of them?

Amanda got a summer job working on an app where people post pictures of their pets. This week they had $1,000,000$ pictures posted. Of those pictures, $47 \%$ were dogs. How many pictures of dogs did they get this week?

Show the steps to solve $9(49+9+16) \div 2 \times 11-89 \times 12$
Parentheses
Exponents
Multiplication \& Division (or Division \& Multiplication!)
Addition \& Subtraction (or Subtraction \& Division!)

Name:

There are 5000 watts of continuous power available from the Big Town thermal spring. The Littleville thermal spring has 22 times that much power available. How much continuous power is available at the more powerful spring?

Ava donated eleven percent of the money she earned this summer to her local fire department. If she donated a total of $\$ 145$ how much did she earn this summer?

Amanda is making chocolate milkshakes for Anna's birthday party. There will be fifteen people at the party. It takes half of a cup of milk to make one chocolate milkshake. How many cups of milk will it take to make fifteen milkshakes?

Mr. Bloop dissolved 3.3 grams of sugar in 148 ml of water. What was the final concentration of sugar (in $\mathrm{g} / \mathrm{ml}$ )? Round your answer to the nearest ten-thousandth.

The Bigtown Middle School baseball team has room for 19 players. Eleven have been chosen. If there were 25 players trying out for the team, how many of those remaining will not be chosen?

Proteins are made from linear sequences of amino acids. How many different proteins could be made from the amino acids phenylalanine, glutamic acid, and lysine?

Hannah dried some plant roots in the oven. She found that the mass of the roots changed by $-35 \%$. The mass, after drying, was 90 grams. What was the mass before drying? Round your answer to the nearest whole number.

If twenty and three 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?

Name： $\qquad$
Pay the bill！

Alex needs money．He wants to get $\$ 160$ in cash， so he writes a check payable to cash in this amount．Write this check．

## ALEX

DATE

PAT TO THE
\＄ $\square$

DOLLAARS

MEMO
！：ワ75山ぬワБ 己ワ：

1507

Pay the bill！

Alex received a bill for his cellphone from Mobile Unlimited for \＄54．59．Write the check as Alex would write it．

ALEX
1510
DATE

PAY TO THE

\＄ $\square$

DOLLARAS

MEMO $\qquad$


How many minutes is it from 6：00 a．m．to 11：35 a．m．？

A toy car can go 4 mph． How long would it take to go 9 miles？

Round the decimal 0.655 to the nearest hundredth．
cents？

$$
37+n=52
$$ $37+n=52$

What 6 coins add up to 91

Name: $\qquad$
Pay the bill!

Pam received a bill from
Central Water for \$111.47. Write the check as Pam would write it.

PAM
1055

DATE

PAY TO THE
ORDER OF $\qquad$ \$ $\square$

DOLLARAR

MEMO $\qquad$


Pay the bill!

Rent is due. Pam needs to pay her landlord $\$ 1,900$. Her landlord's name is Hannah Harris.

PAM
1056

DATE

PAY TO THE ORDER OF

\$ $\square$

DOLLARA

мемо $\qquad$


$$
10+88 \div 11
$$


$8 \times 4 \div 4$

Write $\frac{5}{10}$ in lowest terms.
$\square$
Name: $\qquad$
Make change. You can use $\$ 20, \$ 10, \$ 5, \$ 1,25 \llbracket, 10 \llbracket, 5 \llbracket$, or $1 \uparrow$.

Sarah has $\$ 70.19$. She has 4 bills and 18 coins. How?

\$20


David has $\$ 21.13$. He has 2 bills and 14 coins. How?

April has $\$ 11.36$. She has 2 bills and 5 coins. How?

Jack has $\$ 37.85$. He has 5 bills and 7 coins. How?

Name: $\qquad$
Each row, column, and box must have the numbers 1 through 6. The first box is done.

| 2 | 1 | 5 |  |  | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 3 | 6 | 4 |  |  | 5 |
|  |  |  |  | 5 |  |
|  |  |  | 3 | 1 | 4 |
|  |  | 3 |  |  | 1 |
|  |  | 2 |  |  |  |

Each row, column, and box must have 6 different pictures.

$\square$
Name:

## Sudoku Sums of 12

Each row, column, and box must have the numbers 1 through 9. Hint: Look for sudoku sums. The sum of the two boxes inside of the dashed lines is 12 .

Here is an example of a sudoku sum of 12 :


|  |  | 9 |  | 2 |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 4 | 8 | 1 |  | 7 | 7 |  |  |  |
|  |  |  | 8 | 4 |  | 3 |  | 5 |  |
| 5 |  |  |  |  |  |  |  |  | 7 |
|  |  |  |  | 1 | 5 |  | $\vdots$ | 8 |  |

Change $\frac{3}{5}$ to a decimal.
$\square$
Name:
Each row, column, and box must have the numbers 1 through 9 .

|  |  |  |  |  |  |  | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | 4 |  |  | 5 |
|  |  | 7 | 3 |  |  | 7 | 6 |  |
|  |  | 5 | 9 |  |  |  | 7 |  |
|  |  |  |  |  | 2 |  | 5 |  |
| 4 |  | 2 | 7 | 8 | 3 | 5 |  |  |
| 9 |  |  | 2 |  |  |  |  | 7 |
|  | 5 | 3 |  |  | 6 | 1 |  | 8 |


| Simplify. |
| :--- |
| $\frac{94}{141}=$ |
|  |

Simplify.
$7,800=$
23,400

Circle the least amount:
16\%
0.49
$\frac{8}{25}$

| $12 \mathrm{lb}=\ldots$ oz |  |
| :--- | :--- |
|  |  |
|  |  |

Name:


Can you draw ONE line going through ALL the circles? Your line can go left, right, up, or down. It cannot go diagonally. Your line cannot cross over any part of the line you have already drawn.
You MUST TURN in a BLACK circle. Do NOT TURN in a WHITE circle.

The puzzle on the left shows a correct line going through all the circles.

Finish the line:


Finish the line:


Write 71,708 in words.

$\square$
Name: $\qquad$
$7+104 \div 8-36 \div 6=$

$$
12+8 \cdot 10+5
$$

If $a=6$ and $z=-18$ then what is $4 a-12 z-3 z=$ ?
What is the mode of the
following number set?
$70,78,70,65,74,77,76,79$,
$68,80,68,68,78,82,69,71$
What is the remainder of 14
divided by 4 ?

Use >, <, or = to complete.

$$
\begin{aligned}
& \frac{3}{4}-26 \% \\
& \frac{3}{11}-46 \% \\
& \frac{1}{10}-65 \%
\end{aligned}
$$

$12 j-27.4=56.6$
$j=$
$0.9(0.5(0.9 \times 9))=$

Name:

What is the mode of the
following number set?
$75,77,70,73,80,65,84,74$,
$69,86,63,79,83$
$0.6 \times 0.05$

Simplify. $\frac{56}{72}=$


If $f=-4$ and $n=43$ then what is $10 f+9 n-3 n=$ ?
$|-7|+z=12$
z =

What is the greatest common factor of the numbers 52 and 26 ?


## Find the least common

 denominator for the fractions $\frac{9}{16}$ and $\frac{6}{36}$.
## $0.6 \times 0.9$

Rewrite $\frac{22}{25}$ as a decimal.
A circle graph has four sections. Only three sections are labeled. The labels are $16.41 \%$, 17.63\%, and $15.96 \%$. What should the missing section be?

In what quadrant would you find the point (3, -1)?

Name：

Pick up all of the robots from the game board．Start on the $\mathbf{B}$ circle．Do not pick up your pencil． Draw a line going left，right，up，or down．Every line must end on a robot or the E circle．No stopping on an empty box．Try to collect all the robots and end your last line on the $\mathbf{E}$ circle． You can go through a robot more than once．

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| E |  |  |  |  |  |  |  |  |  |

Name:

Sally loves softball. She plays in a league where she has 3 games a week, not to mention 2 practices a week. Talk about exhausting!
So far this season, she has played 30 games. She's been to the plate 100 times. Of those 100 times, she's walked 15 times and had 20 hits.
"Hey, Sally," yells Sam. He is also known as Statistic Sam. "I'm trying to calculate your batting average. I just need to take the number of hits and divide that by your at bats." "Go for it," replies Sally. "Don't forget that walks don't count as at bats!" "Huh? Oh, yeah, thanks!" replies Sam. He knows, for example, if she had 5 plate appearances with 1 walk and 1 hit, her average would be 1 for 4 or 0.250 . In softball (and baseball) they always show an average with 3 decimal points.
What's Sally's batting average?

During the game, Sally went to the plate 5 times. Wow! She didn't walk, but she had 2 singles. Will her average go up or down after this game?
$\square$ I decided to skip this page

Name:
I am a whole number. When rounded to the nearest ten, the answer is 50 . The sum of my digits is 10 . What number am I?

Anna is playing a game with Jenna. Together they have 988 points and need to get 350 more points to win. Jenna has $3 \frac{3}{4}$ times as many points as Anna. How many individual points does Anna have?

Name: $\qquad$
Find 2 equations hidden in each box. Good luck!
$79+1$ 84 $38 \quad \begin{gathered}\text { bot } \\ 95 \times 6\end{gathered}$ 570
$29 \times 1$
9-1
425
$94 \times 9$
${ }_{67} 297$
67
54

7-3

Write 2 equations:
130


45-9
117
64

73-8
13-8
184
125

36
51-8
$57 \times 5 \quad 17-2$

Write 2 equations:


Write 2 equations:
$\square$
Name: $\qquad$
Find 2 equations hidden in each box. Good luck!
$99 \times 7$

$29 \times 2$ 56-8
552

48
$\begin{array}{rr}79 & 92+7 \\ 53 \times 8 & 38 \\ 49 & \end{array}$
58-3

16

Write 2 equations:
160

$$
\begin{array}{lccc} 
& 99+76 \\
9 \times 9 & 12+77 & 120 & 103 \\
97 & & &
\end{array}
$$

89
$55+32$
33
39

Write 2 equations:


Write 2 equations:

Name:

| Kevin knows that his teacher loves birds. He is building a birdhouse for her for Teacher Appreciation Week. He started working on the birdhouse at 2:35 p.m. Saturday afternoon. He worked until it was all finished at 4:06 p.m. that evening. How long did Kevin work on the birdhouse? | The Market on the Square had to buy 22 new carts. The price of each cart was $\$ 119.95$ plus $\$ 10$ per cart to put the name of the market on the cart. If the manager of Market on the Square decides to buy 15 new carts with the name of the market and the rest without, what will the cost be? | Alex opened a savings account with the $\$ 80$ he received for his birthday. He made two deposits of $\$ 34.50$ and $\$ 19.01$ this month. He made three withdrawals of $\$ 17.57$, $\$ 24.68$, and $\$ 16.57$ this month. How much did he have at the end of the month? |
| :---: | :---: | :---: |

$\left.\begin{array}{|l|l|l|}\hline \begin{array}{l}\text { The Merry Mart had a } \\ \text { candy sale on Candy } \\ \text { Day. The store sold the } \\ \text { candy for 10\% off the } \\ \text { regular price. The } \\ \text { regular price of a box } \\ \text { of Mellow Mints was } \\ \$ 2.48 \text {. How much did the } \\ \text { box of mints cost on }\end{array} & \begin{array}{ll}\text { Miss Garcia was making ice } \\ \text { cream sodas. She needed } 1\end{array} & \begin{array}{l}\text { Justin found } 30 \text { seashells. } \\ \text { He put them in a bag } \\ \text { and pulled out 4 pink } \\ \text { shells out of } 12 \text { pulls. } \\ \text { Candy Day? With the amount of }\end{array} \\ \text { soda she had, she could } \\ \text { make 8 } \frac{1}{4} \text { ice cream } \\ \text { pink shells he will pull in } \\ 15 \text { more pulls. }\end{array}\right\}$



