Name: $\qquad$
$3+8 \times 9+4$
A circle graph has four sections. Only three sections are labeled. The labels are $7 \%$, $41 \%$, and $6 \%$. What should the missing section be?
$7 \times 40 \div 8$

If $4 x=68$, then $x=$

If $a=6$ and $b=7$. then
$3 a+b=$
Use >, <, or = to complete.
$\frac{1}{2}-62 \%$
$\frac{3}{4}-65 \%$
$79 \%-\frac{2}{9}$
$0.3 \times 0.2$

$$
0.3(0.4(0.3+4))=
$$

## What is the prime factorization of 27 ?

6, $5 \frac{2}{3}, 5 \frac{1}{3}, 5,4 \frac{2}{3}$, $4 \frac{1}{3}, 4, \longrightarrow 3 \frac{1}{3}$, 3, $2 \frac{2}{3}, 2 \frac{1}{3}, 2,1 \frac{2}{3}$, $1 \frac{1}{3}, 1, \frac{2}{3}$

Name: $\qquad$

This puzzle has a large number in the middle, which is the sum of the four numbers that surround it.

$$
7 \frac{1}{3}+3 \frac{2}{3}+1 \frac{1}{3}+-2 \frac{1}{2} \quad 9 \frac{1}{3}+1 \frac{1}{3}+3 \frac{2}{3}+\frac{-1}{3}
$$



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: $\frac{-1}{3},-3 \frac{4}{5}$, or $-2 \frac{1}{2}$. The other three numbers have to all be DIFFERENT and must be from these: $3 \frac{2}{3}, 7 \frac{1}{3}, 1 \frac{1}{3}$, or $9 \frac{1}{3}$.


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: $-2 \frac{1}{2},-1 \frac{3}{4}$, or $-3 \frac{2}{9}$. The other three numbers have to all be DIFFERENT and must be from these: $8 \frac{1}{2}, 9 \frac{1}{2}, 6 \frac{1}{2}$, or $\frac{1}{2}$.


Name:

Houdini once said, "My brain is the key that sets me free." Jason made a banner for the school library exhibit of Houdini books and pictures with that sentence on it. If each letter, punctuation mark, and space takes up 2.2 inches on the banner and there is 4.5 inches of blank space at both the beginning and end of the banner, how long will the banner be?

Mr. Young is getting married soon. He is buying ties and tie tacks for his groomsmen. The ties cost $\$ 42.84$ each, and a tie tack costs $\$ 75$. The store will wrap the packages for $\$ 3.75$ each. He will have 5 groomsmen. How much will he spend on the gifts?

Sarah needs to make these two fractions equal. Help her find the missing number!

$$
\frac{? ?}{60}=\frac{25}{100}
$$

In each group, use 4 of the numbers to make a proportion.

| 28 | 112 | 35 | 40 | 20 | 64 |
| :--- | :--- | :--- | :--- | :--- | :--- |

Name: $\qquad$
Fill in the missing numbers.

$$
\begin{aligned}
& 18-(-5)= \\
& 23-(\ldots)=32 \\
& +\quad+(-4)=12
\end{aligned}
$$

$-15-(-8)=$ $\qquad$

$$
-(-2)=-17
$$

$$
\ldots+(-6)=-28
$$



Find the difference between 28.6 and 21.9.
$50,60,70,80,90,100$,
110, $\qquad$ 130, 140

| $788-332=\ldots$ | $1 \mathrm{~kg}=1,000 \mathrm{~g}$ <br> $10 \mathrm{~kg}=\ldots$ | $12 \times 3=$ |
| :--- | :--- | :--- |
|  |  |  |

Name:
Write each as a decimal.

## 2 thousandths as a decimal is

## $39.7 \%$ as a decimal is

## $16 \%$ as a decimal is

$5 \frac{5}{10}$ as a decimal is
How many centimeters in
3.9 meters?

$$
38+n=56
$$

What is the value of $n$ ?
The perimeter of a rectangle is 14 cm . The longer side is 5 cm . How long is the shorter side?

It's 11:00 a.m. Rose has soccer practice today. If practice starts at 3:30 p.m., then how much longer until soccer starts?

Draw a number line with $0, \frac{1}{2}$, and 1 . Show where $\frac{5}{11}$ would go. Is $\frac{5}{11}$ closer to $0, \frac{1}{2}$, or 1 ?

Name:

Mary is drawing a mural of the night sky on black poster board with white chalk. If she uses up a stick of chalk at the rate of one stick every thirteen minutes, and she works on her mural from 7:37 a.m. until 10:26 a.m., how many sticks of chalk will she use?

Mr. Jackson has a truck garden and raises a variety of vegetables. Last year he used 12.6 acres of his land for squash. He planted zucchini on 4.03 acres of that land. How much land was left for other kinds of squash?

The average person in the United States consumes 4.8 kg of chocolate every year. David eats 3 oz of chocolate every day. How many more pounds of chocolate per year does David eat than the average? ( $1 \mathrm{~kg}=2.2 \mathrm{lb}$ )


Name:



Name: $\qquad$


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:


| $8 \times 11=$ | $7 \times 3=$ |
| :---: | :---: |
| $5 \times 8=$ |  |

Finish the line:


Peter has two pennies, two nickels, and one dime. He also has one other coin that is different from the rest of his coins. How much could he have?


Name: $\qquad$

$$
\begin{array}{|l}
4 \cdot 2 \cdot 2 \cdot 6 \cdot 4 \bullet=\bullet \div \cdot 9 \cdot 4 \bullet 8 \bullet= \\
3 \cdot 4 \cdot 0 \cdot=
\end{array}
$$

Use the pieces above to help you fill in the runaway math puzzle.


| $2 \times 9=\ldots$ | Circle the greatest number: <br> 17,326 |
| :---: | :---: |
|  |  |
| $457,182,039$ |  |
| $870,263,594,151$ |  |

For 9,680,450,407,272,489, write the digit that is in the ten thousands place.

Name: $\qquad$
Find the way from START to END by passing through EVERY number that is a multiple of twelve exactly ONCE. Cross off each box that is NOT a multiple of twelve. Yes, that means you have to go through ALL the multiple of twelve boxes. Wow!
You are not allowed to go diagonally. Good luck!

| START | 871 | 630 | 80 | 60 | 912 | 120 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 540 | 684 | 408 | 444 | 432 | 96 | 720 |
| 600 | 120 | 384 | 984 | 312 | 816 | 528 |
| 108 | 840 | 348 | 888 | 48 | 168 | 324 |
| 552 | 504 | 446 | 27 | 84 | 816 | 207 |
| 588 | 411 | 284 | 635 | 886 | 974 | 378 |
| 636 | 792 | 398 | 84 | 840 | 11 | 565 |
| 712 | 276 | 788 | 972 | 768 | 60 | 864 |
| 891 | 300 | 432 | 204 | 996 | 683 | 516 |
| 77 | 279 | 792 | 612 | 168 | 393 | END |

Name:

Ava is three years older than Justin. If Justin is $m$ years old, then how old is Ava?

Find the sum of their ages in terms of $m$.

Expand and simplify.
$23+10 k-10+4(+1 k)$
$9(7 s+17)+6(9 s+6)$
$2(19+4 y)+3(+1 y)$

## Factor each expression.

$9 z+45$

6s - 54
$13 k+60-5 k-12$
$11 r+75-4 r-26$

Sarah has six unused gift cards. Each gift card has the same amount of money on it. If each card has $m$ dollars on it, how much money in gift cards does she have?

Name:
$\square$

$-8+2=$


$8+-3=$

$23+-37=$


$$
-10--2=
$$

Name:
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 8 in your head | imagine 3 in your head | imagine 6 in your head | imagine 2 in your head |
| :---: | :---: | :---: | :---: |
| multiply 7 | add 9 | double it | add 6 |
| add 7 | multiply 9 | add 8 | subtract 3 |
|  | add 7 | subtract 7 | add 3 |
|  |  | subtract 8 | subtract 4 |
|  |  | subtract 4 |  |
| Write the ones digit. | Add the tens digit to the ones digit. Write the sum. | Write the number. | Write the number. |
| A | B | C | 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?



6 after 17 $\qquad$

4 after 12 $\qquad$ 8 before 11

7 before 17 $\qquad$

3 before 19 $\qquad$ 3 after 11 $\qquad$

Name: $\qquad$


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

Finish the line:


Finish the line:

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  | $\ddots$ |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Amanda makes a basket for every two attempts that she makes. Hannah needs four attempts to make a basket. Each basket is worth 2 points. If they each make 24 attempts, then what is the score?



