| 9 | +3 | +5 | -14 | +7 | +1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Name: $\quad$ Sin 2 ares |  |  |  |  | -11 |
| 25 |  | $\square$ page $7 \square$ page $13 \square$ page $19 \square$ page 25 <br> $\square$ page $8 \square$ page $14 \square$ page 20 <br> $\square$ page $9 \square$ page $15 \square$ page 21 <br> $\square$ page $10 \square$ page $16 \square$ page 22 <br> $\square$ page $11 \square$ page $17 \square$ page 23 <br> $\square$ page $12 \square$ page $18 \square$ page 24 |  |  | $\begin{aligned} & \begin{array}{c} \text { Challenge } \\ \text { Math } \end{array} \\ & \hline \text { Book } 29 \end{aligned}$ |  |
| -1 |  |  |  |  |  | +25 |
| +26 |  |  |  |  |  | -13 |
| -8 | Start on the square. Draw exactly 8 lines without picking up your pencil to connect all the circles. |  |  |  |  |  |
|  | $\bigcirc$ |  |  |  |  |  |
| -6 |  |  |  |  |  | +16 |
| +8 |  |  |  |  |  | -17 |
|  | 0 |  |  |  |  | 2 |
| -4 |  |  |  |  |  | +4 |
|  | +6 | -7 | -5 | +8 | +2 |  |

Name:
Sally made 12 pumpkin pies. She sold 6 pies. How many pies were left?


Justin has five bathtub boats. Hunter has two more boats than Justin has. Jason has four more boats than Hunter has. How many boats does Jason have?


Connor made 18 popcorn balls. There were 2 popcorn balls left after the party. How many popcorn balls were eaten?


Holly planted 34 rose bushes. Sixteen of them will have pink roses. The rest will have red roses. How many bushes will have red roses?

26, $\qquad$ 28, $\qquad$ , $\qquad$
$\qquad$ 32

There were 20 pieces of birthday cake. After the picnic there were 5 pieces of cake. How many pieces of cake were eaten?


Fairview School baked 222 cupcakes for Valentine's Day. The students ate 203 cupcakes. How many cupcakes were left?

Name:
Amanda counted 37
parents at the picnic.
Ava counted 9 more
than Amanda. How
many parents did Ava
count?
$\square$

## Megan's mother

 bought thirty-eight stamps. One-half of the stamps had birds on them. The rest of the stamps had pictures of bears on them. How many stamps had pictures of bears on them?There are seventeen elephants at the zoo. About how many elephants does the zoo have? (Hint: Round your answer to the nearest ten.)


## There were some

 marshmallows in the bag. Robert ate 8. Hunter ate 4. There are 11 marshmallows left. How many marshmallows were in the bag before Robert and Hunter ate some?Sarah went to the store. She bought a box of pasta for $\$ 1.63$, some cheese for $\$ 2.15$, and pasta sauce for $\$ 3.76$. How much did she spend in all?

$$
\begin{array}{r}
16 \\
+80 \\
\hline
\end{array}
$$

Wendy is so thankful for her shirts. Each shirt has five buttons. How many buttons are on three shirts?

## Name:



How many cheese wedges would it take to equal 8 pounds? Draw your answer.


Which equation would you use to add up all of the grapes? Solve the correct equation.

$5+5+5+5=$

$6+6+6+6=$
$8+4=$
$4+4+4+4=$


Put the foods in order of most to least.


Name:
Gavin's class planted a Peace Garden on Youth Against Violence Day. They planted 65 peace lilies and 28 ferns. How many plants did they put in the Peace Garden in all?

There was a picnic at the beach on
Sandcastle Day. Everyone could have a hot dog, a hamburger, or a corn dog. Seven people chose corn dogs, nine chose hot dogs, and seven chose hamburgers. What number is the mode?

David shared his crayons with Connor.
Connor took eleven crayons. David had seventeen crayons left. How many crayons did David have to begin with?

Amy picked 42 cherries Monday. She picked 39 cherries Tuesday. She needs 150 cherries for the cherry pie. How many more cherries does she need to pick?

Write how much to add or subtract.

$\square$
Name:
The hundreds place is 1 .
The ones place is 3 .
The tens place is 2 .
The thousands place is 1 .


Help! Your phone is locked. Use the clues above to unlock it. Good luck!

Locked Locked Locked
-.-_-3
is the code to unlock

| O clean | ○ kaaym | 359 |
| :--- | :--- | :--- |
| O klean | ○ ceme | I am in the ones place. <br> What number am I? <br> clann <br> claen |
| Ocame | I am seven numbers more than the number in the ones place. <br> What number am I? |  |

Write the final part of the math analogy.
September 3rd: Sunday :: September 16th :
Explain why you think your answer is correct.


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?



## What is the sum?

$$
A+B+C+D+E
$$

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

$$
-\quad i \quad r \quad-\quad n
$$

5 after 16 $\qquad$ 4 before 15 $\qquad$ 6 before 11 $\qquad$

7 after 15 $\qquad$

8 after 11 $\qquad$ 1 before 19 $\qquad$

7 before 18 $\qquad$ 5 before 14 $\qquad$

Name: $\qquad$
There is a line of leprechauns at the end of the rainbow. They want to look at the gold. Sprinkles checks his rainbow app. It tells him how many people are in line. But his app is acting weird. This is the message:
Clumsy is in line. There are 3 leprechauns in front of Clumsy.
Goldie is in line. There is 1 leprechaun between Clumsy and her.
No one is behind Goldie.
How many leprechauns are in the line?

Draw a picture to show the line. Make a nice looking rainbow with gold, please!
$\square$
Name: $\qquad$
Fill in the blanks by adding the two numbers below each hexagon.


How much is this?

$\square$

## Name:

$\qquad$

## Four-Leaf Clover

Four-leaf clovers are suppposed to give a person good luck. Solve all of the math problems below. Cross out the problems in the front clover whose answers are not 4.

Cross out the problems in the middle clover whose answers are not 8.
Cross out the problems in the back clover whose answers are not 12. GOOD LUCK!

$\square$
Name: $\qquad$


Goldie McTurnips is counting gold.
First he counted by 3 s and had one left over.
Then he counted by 10s. He had more than four tens, but less than five tens.
"I am knackered," Goldie said. "That means I am tired."
Then he counted by 5 s and had two left over.
Stumpy McSpud interrupted all this counting. "I know what knackered means! My four-leaf clover here says you don't need to count anymore."
"I don't?" asked Goldie.

Show your work.

Help Goldie. How many gold pieces does he have? Draw numbers, write stuff, or do whatever you want to figure this out. But whatever you do, don't get knackered!

Name:


How many?


A two-digit odd number has a 2 in the tens place. The sum of the ones and tens digits is 9 . What is the number?

Pam took her empty backpack and filled it with tennis balls. Estimate how many tennis balls you think she was able to fit into her backpack.

$\qquad$
$\square$


Name: $\qquad$


Sarah took an empty half gallon milk carton and filled it with jelly beans. Write a number to estimate how many jelly beans are in the milk carton.

Wendy has nine tickets to the middle school play. She gave Amanda a ticket. She gave three tickets to Megan. How many tickets does Wendy have left?

How many dots on the bug?


There were fourteen kids on the playground. Three of them came inside to read. How many kids are still on the playground?

57, $\qquad$
62, 63
$\qquad$


How many?

$\square$
Name:

| 13 -8  +9   +1  +8 |
| :--- |



How much is this?


How many?


Name:

$$
\begin{aligned}
& \square 12+8=20 \\
& \square 3+10= \\
& \square 7+9= \\
& \square 7+10= \\
& \square 10+12= \\
& \square 5
\end{aligned} \left\lvert\, \begin{array}{cccccccccccccccc}
25 & 4 & 4 & 5 & 5 & 11 & 10 & 7 & 15 & 2 & 17 & 14 & 8 & 10 & 11 & 22 \\
3 & 12 & 15 & 14 & 3 & 7 & 7 & 2 & 16 & 7 & 8 & 13 & 19 & 19 & 7 & 10 \\
10 & 7 & 9 & 16 & 8 & 14 & 28 & 16 & 17 & 10 & 4 & 4 & 3 & 4 & 4 & 12 \\
7 & 17 & 9 & 5 & 9 & 14 & 9 & 6 & 15 & 22 & 12 & 23 & 10 & 4 & 23 & 22 \\
8 & 14 & 9 & 2 & 14 & 2 & 12 & 7 & 3 & 10 & 13 & 13 & 17 & 8 & 10 & 4 \\
5 & 8 & 15 & 19 & 27 & 14 & 14 & 16 & 12 & 16 & 5 & 9 & 12 & 17 & 16 & 19 \\
15 & 21 & 14 & 2 & 9 & 15 & 11 & 20 & 8 & 10 & 9 & 10 & 2 & 12 & 3 & 15 \\
\square 5+9= \\
\square 5+2 & 22 & 12+8 & =20 & 28 & 1 & 9 & 19 & 7 & 11 & 15 & 8 & 3 & 3 & 5 \\
\square \\
\square & 23 & 8 & 8 & 16 & 7 & 3 & 12 & 5 & 10 & 28 & 16 & 14 & 10 & 12 & 14 \\
\square 8+7= \\
\square 10+2 & = & 16 & 16 & 4 & 13 & 20 & 16 & 15 & 21 & 3 & 7 & 15 & 4 & 3 & 17 \\
10 \\
10 & 3 & 10 & 9 & 9 & 12 & 8 & 7 & 15 & 12 & 2 & 9 & 3 & 9 & 4 & 2 \\
5 & 2 & 7 & 10 & 2 & 25 & 16 & 7 & 8 & 6 & 29 & 20 & 19 & 9 & 13 & 8 \\
\square 8+4= \\
\square 12 & 7 & 10 & 17 & 17 & 9 & 16 & 4 & 16 & 12 & 14 & 14 & 3 & 15 & 3 & 19 \\
\square & 13 & 13 & 8 & 22 & 4 & 12 & 9 & 28 & 10 & 5 & 2 & 22 & 14 & 10 & 16 \\
12
\end{array}\right.
$$



Write operation.

Write = sign.
Circle.


$\square 2+11=$
$\square 9+4=$
$\square 7+5=$
$\square 4+11=$
$\square 4+3=$
$\square 5+9=$
$\square 10+3=$
$\square 7+11=$
$\square 12+10=$
$\square 12+8=$
$\begin{array}{llllllllllllllll}23 & 9 & 11 & 12 & 13 & 11 & 15 & 11 & 10 & 14 & 10 & 8 & 4 & 12 & 10 & 11\end{array}$ $\begin{array}{llllllllllllllll}13 & 12 & 7 & 9 & 3 & 2 & 2 & 18 & 2 & 3 & 22 & 20 & 11 & 10 & 13 & 27\end{array}$ $\begin{array}{llllllllllllllll}14 & 4 & 11 & 11 & 4 & 13 & 28 & 7 & 11 & 2 & 7 & 9 & 7 & 11 & 11 & 8\end{array}$ $\begin{array}{llllllllllllllll}18 & 11 & 4 & 29 & 18 & 9 & 7 & 27 & 13 & 7 & 13 & 8 & 16 & 18 & 10 & 14\end{array}$ $\begin{array}{llllllllllllllll}26 & 7 & 12 & 8 & 3 & 5 & 11 & 3 & 4 & 3 & 8 & 1 & 5 & 6 & 15 & 7\end{array}$ $\begin{array}{llllllllllllllll}7 & 13 & 2 & 8 & 18 & 11 & 10 & 2 & 3 & 22 & 14 & 9 & 4 & 4 & 12 & 13\end{array}$ $\begin{array}{llllllllllllllll}7 & 3 & 7 & 10 & 15 & 14 & 4 & 13 & 7 & 4 & 1 & 14 & 17 & 12 & 8 & 8\end{array}$ $\begin{array}{llllllllllllllll}15 & 18 & 18 & 2 & 13 & 4 & 9 & 4 & 13 & 7 & 2 & 7 & 5 & 2 & 5 & 5\end{array}$ $\begin{array}{lllllllllllll}4 & 22 & 8+10=18 & 2 & 4 & 7 & 18 & 2 & 4 & 5 & 20 & 13 & 10\end{array} 2$ $\begin{array}{llllllllllllllll}6 & 11 & 4 & 8 & 7 & 16 & 14 & 15 & 18 & 11 & 5 & 12 & 3 & 9 & 27 & 7\end{array}$ $\begin{array}{llllllllllllllll}1 & 10 & 5 & 20 & 5 & 17 & 4 & 18 & 4 & 13 & 12 & 9 & 10 & 8 & 18 & 22\end{array}$ $\begin{array}{llllllllllllllll}14 & 3 & 9 & 27 & 7 & 10 & 3 & 13 & 7 & 11 & 10 & 7 & 14 & 22 & 10 & 7\end{array}$
$\square$
Name:
Complete each pattern, using the same rule. Write what the rule is.

$$
\begin{gathered}
0,0,3,3,3,0,0,0,0,3,3,3,0,0, \\
0,0,0,0,3,3,3,0,0,0,0, \ldots,---
\end{gathered}
$$

$1,1,2,2,2,1,1,1,1,2,2,2,1,1$,
$1,1,1,1,2,2,2,1,1,1$, $\qquad$
$\qquad$
$\qquad$

Find the missing numbers. These both have the same rule. What is the rule?

If
$1,1=2$
$2,2=4$
$3,3=6$
$4,4=8$
Then
$5,5=$ ?

If
$6,6=12$
$7,7=14$
$8,8=16$
$9,9=18$
Then
$10,10=$ ?
$\square$
$\qquad$

## What Faye Found

Faye asked her first grade class what their favorite type of pizza was. She made a pie graph to show what she found.


What kind was voted fifteen percent?

What percent of the class liked sausage?

Name: $\qquad$

| + | 2 |  |  | 9 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | + 2 | $2$ | + |  | + 5 |
| 2 | $\underline{2}+2$ | $2+$ | $11$ $\underline{2}+$ | $\underline{2}+9$ | $\underline{2}+\underline{5}$ |
|  |  | + | _+ | $\ldots+9$ | $\begin{array}{r} 14 \\ + \\ \hline \end{array}$ |
| 2 | $\underline{2}+2$ | $\begin{array}{r} 3 \\ 2+- \end{array}$ | $\underline{2}+$ | $\underline{2}+\underline{9}$ | $\underline{2}+5$ |
|  | $\underline{+2}$ |  | $\underline{+}$ | $\underline{+} 9$ | $\underline{+} 5$ |


| 25 |
| ---: |
| +588 |
| +92 |


| 208 |
| :---: | :---: | :---: | :---: |
| Write the numbers in order from least to greatest. |$\quad$| three hundred |
| :---: |
| fifty-one |

How many shamrocks can you find?


Name: $\qquad$
Fill in the missing numbers.
Only rule - The same number CAN NOT be next to each other, in ANY direction.
Dark lines surround a block. Numbers to use in a block:
A block with 1 space has to be the number 1 .
A block with 2 spaces must have the numbers 1 and 2 .
A block with 3 spaces must have the numbers 1,2 , and 3 .
A block with 4 spaces must have the numbers $1,2,3$, and 4 .


An entire block with 4 spaces is blank. Since the block is 4 spaces it uses the numbers 1-4.

$$
\begin{array}{llll}
3 & 4 & 2
\end{array}
$$



Hint - These numbers are missing:

$$
\begin{array}{llll}
4 & 1 & 2
\end{array}
$$



An entire block with 4 spaces is blank. Since the block is 4 spaces it uses the numbers 1-4.

$$
\begin{array}{llll}
2 & 4 & 3 & 1
\end{array}
$$



Hint - These numbers are missing:

## 342

$1+4=$ $\qquad$
$\bigcirc 7$
04
 $\bigcirc 5$
$9-3=$ $\qquad$
$\bigcirc 85 \bigcirc 5 \bigcirc 58$
06
06
$\bigcirc 3$
$\square$

## Name:

$\qquad$
Fill in the missing numbers.
Only rule - The same number CAN NOT be next to each other, in ANY direction.


Hint - These numbers are missing:

$$
\begin{array}{lllll}
1 & 2 & 2 & 1 & 3
\end{array}
$$

Hint - These numbers are missing:

$$
\begin{array}{llllll}
3 & 3 & 4 & 4 & 2 & 2
\end{array}
$$



Hint - These numbers are missing:

$$
\begin{array}{lllll}
1 & 1 & 3 & 2
\end{array}
$$



Hint - These numbers are missing:

$$
\begin{array}{llllll}
2 & 3 & 2 & 2 & 4 & 1
\end{array}
$$



57,
$\qquad$ 63

Name:

Jacob ate 2 hamburgers with mustard. Then he ate some plain hamburgers. He ate 5 hamburgers in all. How many plain hamburgers did he eat?

29, 30, $\qquad$ —, —. 34

Aesop told 15 stories. Then he told 7 more stories. How many stories did he tell in all?


Sarah picked 9 pink flowers. Then she picked 10 blue flowers. How many flowers did she pick in all?


Robert read 120 limericks. Jason read 103 limericks. How many limericks did they read in all?

How much is this?


Maria has 16 bird pins. Three are bluebirds, four are robins, and the rest are hummingbirds. How many hummingbird pins does she have?


Gru was just after the big elephant in line. The big elephant was ninth. In which position was Gru?

Name:

> Jacob ate 14 lemon drops. Then he ate 19 more. How many lemon drops did he eat in all?


Sarah bought a pair of jeans. She paid with 15 dollar bills, 4 dimes, 1 nickel, and 7 pennies. How much did she pay?

Robert went to the beach. He found 3 quarters, 1 nickel, 5 dimes, and 6 pennies.
How much money did dimes, and 6 pennies. he find in all?
Robert and Jason were very hot. Robert drank three root beer floats. Jason drank four root beer floats! How many floats did they drink in all?


Connor made a poster about bullies. He spent $\$ 1.16$ for the poster paper. The markers cost \$1.61. The glue was $\$ 0.64$. How much did Connor spend in all?


David has some sea monkeys in a tank. He is counting them by 5 s . Fill in the blanks: 5 , $\qquad$ .
15, 20, $\qquad$ . $\qquad$ 35

## 42 <br> $-30$


$\square$
Name:
Draw the missing spots in the patterns.
Show the pattern by putting the same letter under each shape or number.

$A \quad B \quad B \quad B \quad B \quad B \quad B \quad B \quad B \quad B$


$\qquad$
97409740974 _ 9
$\square$



Name:
Draw the missing spots in the patterns.





Draw your own patterns.


AABC_pattern
Draw an AAB pattern.

Draw an ABCC pattern.


Draw an ABCD_pattern.

Draw an ABCD_pattern.
$\square$
I drew an pattern.
$\square$
Name: $\qquad$
Complete each pattern, using the same rule. Write what the rule is.

$$
\begin{gathered}
14,16,18,20,22, \longrightarrow \\
6,8,10,12, \longrightarrow \\
12,14,16, \\
\longrightarrow
\end{gathered}, 28,22,22
$$

Complete each pattern, using the same rule. Write what the rule is.

$$
\ldots \text { _ . 65, 72, 79, 86, } 93
$$

$\qquad$
$\qquad$ $58,65,72,79,86$

40, 47, 54, 61, $\qquad$ 82, $\quad$, 96,103



