

23.6	+44.1		+6		-31		+1.3		+50.5	
------	-------	--	----	--	-----	--	------	--	-------	--

Name: \_\_\_\_\_

Pick 26 to do:

Skip 2 pages.

☐ page 1
 ☐ page 7
 ☐ page 13
 ☐ page 19
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# Challenge Math Book 1

8.6
-17.6
-6.9
-9
-4
+5.4
+28.8

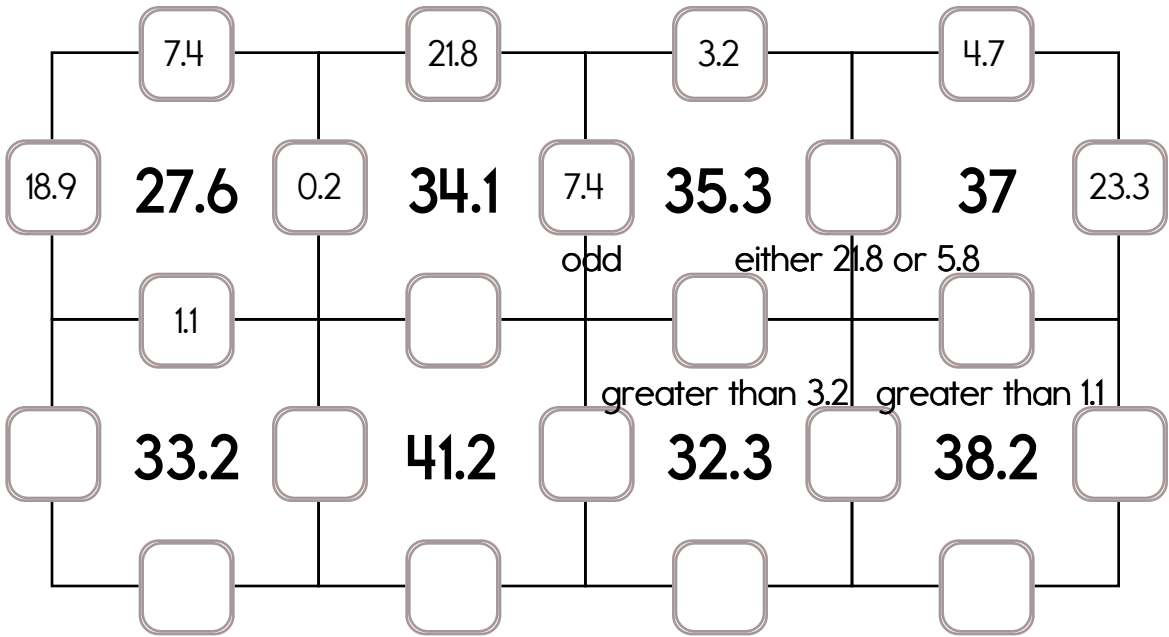
-7
-12.7
-47
+15.8
+2.2
-1
44.8
+5.4



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: 21.8, 18.9, or 23.3.

The other three numbers have to all be DIFFERENT and must be from these: 0.2, 4.7, 7.4, 5.8, 1.1, or 3.2.



Name: \_\_\_\_\_

Find 2 equations hidden in each box. Good luck!

$6 + 6$

$1 + 9$

$12$

$6$

$7$

$17$

$1 + 6$

$1 + 1$

$7 + 9$

$9$

$5$

$8 + 6$

Write 2 equations: \_\_\_\_\_

$2$

$5 - 3$

$4 - 1$

$5 - 1$

$1$

$8$

$0$

$3$

Write 2 equations: \_\_\_\_\_

$4 \times 6$

$21$

$1 \times 5$

$3 \times 4$

$16$

$2$

$20$

$6 \times 7$

$48$

$18$

$56$

$42$

$1$

$5 \times 8$

$6 \times 0$

$3 \times 5$

$7 \times 5$

$24$

$4$

Write 2 equations: \_\_\_\_\_

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?

# Mental Math



= Do it  
in your  
head!

imagine 4 in your head

add 8

add 7

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

\_\_\_\_\_  
A      B

imagine 3 in your head

add 6

add 3

subtract 9

add 1

multiply 4

Write the tens digit.

\_\_\_\_\_  
C

imagine 4 in your head

multiply 2

multiply 11

add 1

add 3

double it

Write the ones digit.

\_\_\_\_\_  
D

imagine 6 in your head

multiply 3

add 6

double it

subtract 7

Write the tens digit.

\_\_\_\_\_  
E

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?

\_\_\_\_\_n\_\_\_\_\_

5 before 17 \_\_\_\_\_

3 after 14 \_\_\_\_\_

7 after 15 \_\_\_\_\_

9 before 14 \_\_\_\_\_

2 after 11 \_\_\_\_\_

9 after 13 \_\_\_\_\_

3 before 13 \_\_\_\_\_

1 after 18 \_\_\_\_\_

5 after 19 \_\_\_\_\_

Name: \_\_\_\_\_

Mr. Smith loves to give homework. "The more the better!" Mr. Smith always says to his students.

"I hope I get him next year," said Sally to April as they were walking to school. She had heard about the daily homework pass. "Did you hear that if you are the first to answer the question of the day on the board, you can skip homework for a week?"

"I know," said April. "He is my teacher this year. I hope you get him next year. Anyway, see you later after class."

When April walked into class, she saw Mr. Smith had already written the challenge:

"Would you believe in my family, my brother, my sister, and myself were all born in August? My older brother, John, was born in 1976. We were born 3 years apart. My older sister, Samantha, was born in 1973."

How old was Samantha when Mr. Smith was born?

The next day the board said:

"How old is Mr. Smith?"

Name: \_\_\_\_\_

**FUN  
BREAK!**

# Play a game online!

[edHelper.com/math-games.htm](http://edHelper.com/math-games.htm)**I PLAYED  
ONE  
GAME**☐(Check the  
box after  
you play.)**MY SCORE**

\_\_\_\_\_



$16 - 9 = \underline{\quad}$

$16 + -9 = \underline{\quad}$

$11 - 9 = \underline{\quad}$

$11 + -9 = \underline{\quad}$

Rewrite  $18 + -14$  $\underline{\quad} - \underline{\quad} = \underline{\quad}$ 

$28 \div \underline{\quad} = 7$

How many total legs are on  
3 tigers and 5 ants?

$12 - 1 \times 7 - 3$

How many yards are in 9 feet?

\_\_\_\_\_ yards

Name: \_\_\_\_\_

Ready to make equations? There is a missing equation in each box.

Circle the numbers once you find it!

**A**

37	<b>2</b>	77
+	46	67 98
	47	48 86

Find an  
addition fact.

**B**

49	87	64
+	<b>20</b>	35 76
	62	77 55

Find an  
addition fact.

**C**

90	85	70
+	<b>84</b>	75 9
	60	78 73

Find an  
addition fact.

Equations:

Write the equation facts you found.

<b>A</b>		+	<b>2</b>	=	
<b>B</b>		+	<b>20</b>	=	
<b>C</b>		+		=	<b>84</b>

$9 \times 10 =$

$$\begin{array}{r} 470 \\ + 347 \\ \hline \end{array}$$

The circus is in town! Tickets are only \$5 for kids. Adults need to pay double the price of kids tickets. Jenna is bringing five of her friends in her class. Her mom is also coming. Jenna wants to pay for everyone. How much will she need to pay?

9 cm = \_\_\_\_\_ mm

Circle the relative adverb.  
After fourth period is when I eat lunch this year.

Name: \_\_\_\_\_

\_\_\_\_\_ + 38 = 110?

- A) 2
- B) -38
- C) 13
- D) 72

$62 + 4 =$

- A) 65
- B) 660
- C) 61
- D) 66

If the following numbers were in order from least to greatest, what is the middle number?

250, 725, 150, 750, 225, 300, 275, 500, and 550

- A) 275
- B) 300
- C) 750
- D) 500

Which of the following has the smallest value?

- A) 9.62
- B) 0.962
- C) A and B are equal.

$72 \div 8 =$

- A) 9
- B) 1
- C) 7

What does the \_\_\_\_\_ stand for in the following equation?

$72 \text{ _____ } 8 = 9$

- A)  $\div$
- B)  $+$
- C)  $\times$
- D)  $-$

Name: \_\_\_\_\_

### Sudoku Sums of 6

Each row, column, and box must have the numbers 1 through 6.  
Hint: Look for sudoku sums. The sum of the two boxes inside of the dashed lines is 6.

Here is an example of a sudoku sum of 6:

3	3
---	---

4		1			
6					1
		5		3	4
3				2	
			1		

$$5 \overline{)40}$$

How many centimeters are in two hundred millimeters?

\_\_\_\_\_

Make a pattern.

Start with 67.

Add 10.

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

$$88 - 7 = \underline{\hspace{2cm}}$$

Do parallel lines intersect?

\_\_\_\_\_

$$\begin{array}{r} 91 \\ + 15 \\ \hline \end{array}$$

**Name:** \_\_\_\_\_

"It's simple," said Jack. "I purchased a container of 500 sprinkles, and there are 227 sprinkles left. So how many cookies did I make?"

All Hannah could do was stare at her brother until she finally had the courage to say, "8?"

"Nope," replied Jack.

"Not fair! You didn't tell me how many sprinkles go into each cookie," whined Hannah.

"Fine," said Jack. "I used a half-teaspoon of butter for each cookie, 7 chocolate chips in each cookie, and for each chocolate chip I used 3 sprinkles. I also put 2 raisins into each cookie."

How many cookies did Jack make?

Show your work.

Name: \_\_\_\_\_

# CHALLENGE YOUR CLASSMATES!

(OR SIBLING OR PARENT)

Play against  
someone!

Go to:

[edhelper.com/math-games.htm](http://edhelper.com/math-games.htm)

Pick your  
grade. Then play  
to challenge  
someone else.

Date played:

Whom I challenged:

Who won?

Explain what you learned from one math problem you got wrong.



Write the number that is  
one thousand more than  
2,260.

You have a playdate in 240  
minutes. How many hours  
is that?

Write the number that is  
one ten less than 5,664.

☐

I did page 10

☐I decided to skip this page  
edHelper**Name:** \_\_\_\_\_

Gavin is taking a 24-hour walk challenge. He is trying to stay awake for 24 hours and plans to walk as far as he can. Each hour he plans to sit and rest for only 4 minutes. If he is able to do this, how long will he spend walking and not resting during the 24 hours?

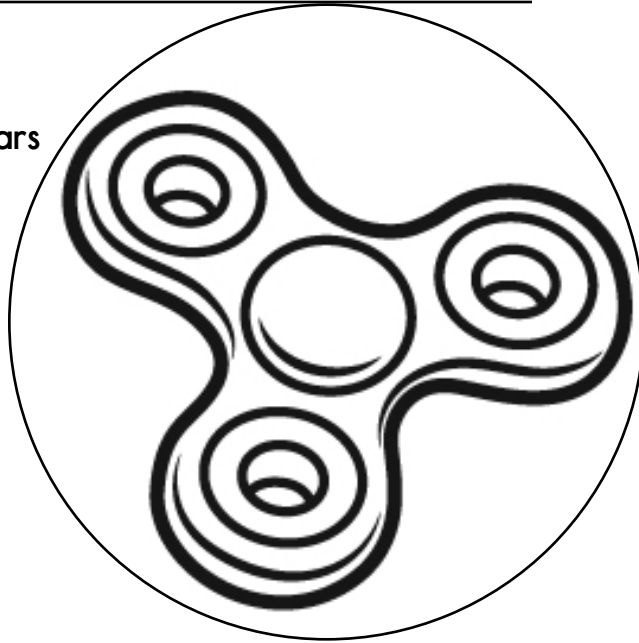
\_\_\_\_\_ hours and \_\_\_\_\_ minutes

Rose invited her friends over to celebrate her birthday. She has 24 boxes of strawberry sour mints to give her friends. In their goodie bags she gave them each 2 boxes of strawberry sour mints. She has 14 boxes left. How many goodie bags did she make?

Name: \_\_\_\_\_

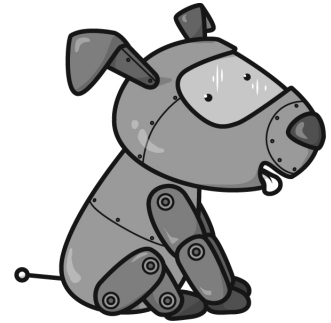
## Directions:

Use the rule that  
1 human year = 7 dog years  
to fill in the blanks.



How many times  
do you need to spin?

I needed to spin \_\_\_\_\_  
time(s) to finish the page.



Spin fidget spinner. Quick!

I needed to spin \_\_\_\_\_ time(s) to finish.

Dog's Age: 81.9Human Years: 11.7Dog's Age: 87.5

Human Years: \_\_\_\_\_

Dog's Age: 42

Human Years: \_\_\_\_\_

Dog's Age: 42

Human Years: \_\_\_\_\_

Dog's Age: \_\_\_\_\_

Human Years: 3.9

Dog's Age: \_\_\_\_\_

Human Years: 1.2Dog's Age: 49

Human Years: \_\_\_\_\_

Dog's Age: \_\_\_\_\_

Human Years: 4.3Dog's Age: 67.2

Human Years: \_\_\_\_\_

Dog's Age: 14

Human Years: \_\_\_\_\_

Dog's Age: \_\_\_\_\_

Human Years: 5Dog's Age: 7.7

Human Years: \_\_\_\_\_

Dog's Age: 49

Human Years: \_\_\_\_\_

Dog's Age: \_\_\_\_\_

Human Years: 10.4

Dog's Age: \_\_\_\_\_

Human Years: 11.8Dog's Age: 36.4

Human Years: \_\_\_\_\_

Dog's Age: \_\_\_\_\_

Human Years: 8Dog's Age: 28

Human Years: \_\_\_\_\_

Dog's Age: \_\_\_\_\_

Human Years: 4.3

Dog's Age: \_\_\_\_\_

Human Years: 2.6

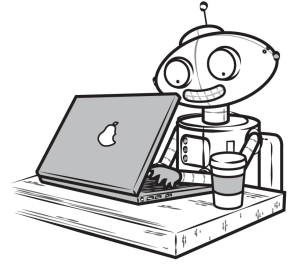
☐

I did page 12

☐I decided to skip this page  
edHelper

Name: \_\_\_\_\_

Dr. Programmer loves to type on his computer. But his darn monitor is sometimes broken. Fill in what the computer should print.

**Dr. Programmer typed:****The computer replied:**

```
A = 3562
B = 100
C = A + B
print ("The number that is ",
      B," more than ",A," is ",C)
```

The number that is  
100 more than 3562  
is 3662

```
A = 4870
B = 10
C = A + B
print ("The number that is ",
      B," more than ",A," is ",C)
```

The number that is  
10 more than 4870 is  
4880

```
A = 7051
B = 100
C = A + B
print ("The number that is ",
      B," more than ",A," is ",C)
```

-----

-----

-----

```
A = 5348
B = 10
C = A + B
print ("The number that is ",
      B," more than ",A," is ",C)
```

-----

-----

-----

Name: \_\_\_\_\_

A = 81685  
B = 1000  
C = A + B  
print ("The number that is ",  
      B," more than ",A," is ",C)

-----  
-----  
-----

A = 63022  
B = 10000  
C = A + B  
print ("The number that is ",  
      B," more than ",A," is ",C)

-----  
-----  
-----

A = 6622  
B = 100  
C = A + B  
print (B," more than ",A," is ",C)

-----  
-----

A = 6220  
B = 10  
C = A + B  
print (B," more than ",A," is ",C)

-----  
-----

A = 55457  
B = 1000  
C = A + B  
print (B," more than ",A," is ",C)

-----  
-----

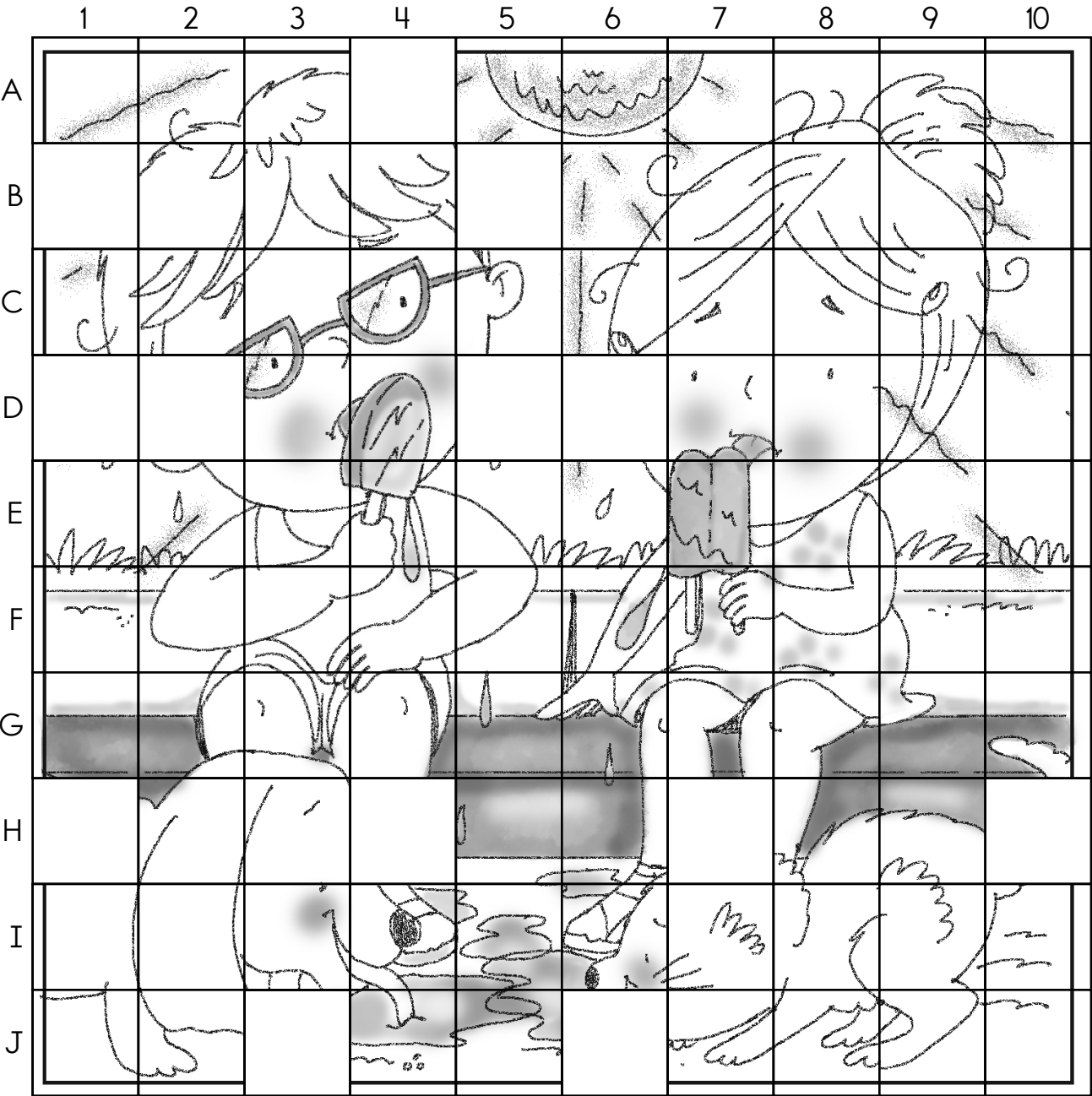
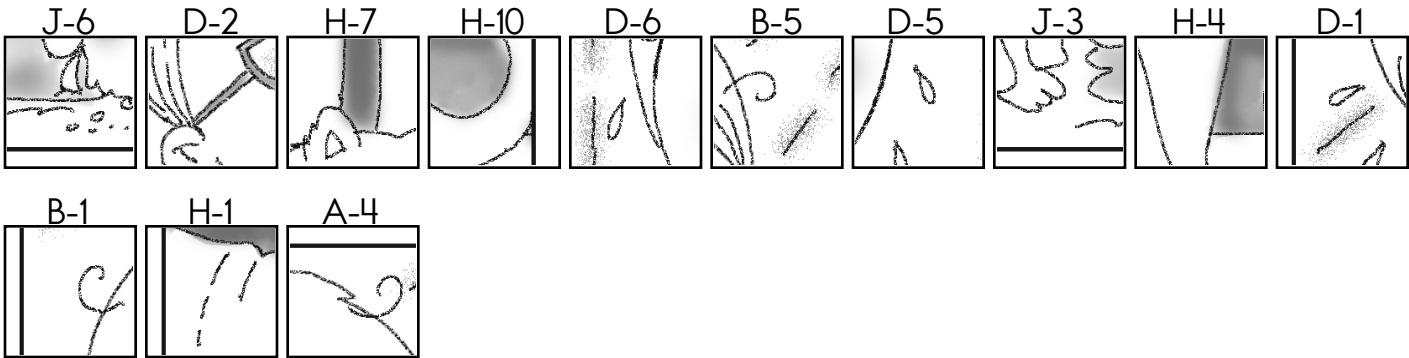
Is 45 a composite or a  
prime number?

\_\_\_\_ ÷ 7 = 5

Write the number that has  
exactly 3 tens.

Name: \_\_\_\_\_

Oh, no. This picture is all mixed up. Try to redraw the picture using the letter and number as a guide.



**Name:** \_\_\_\_\_

Amanda had some pieces of wood to make a picture frame with a perimeter of 82 inches. Two of the pieces of wood are 18 inches long each. The other two pieces are equal in length. How long are the other two pieces of wood?

The 28 students in Mr. Jackson's class wrote notes to special people on Forget Me Not Day. They put pretty stickers on their notes. If each student used 15 stickers, how many stickers were used in all?

The Crazy Color Candy Company plans to make 26,268 pieces of licorice for Licorice Day. If they make an equal number of each of 6 flavors, how many will they make of each flavor?

☐

I did page 16

☐I decided to skip this page  
edHelper

Name: \_\_\_\_\_

Get a fidget spinner! Spin it.

I needed to spin \_\_\_\_\_ time(s) to finish.

Maria bought a pack of six waters. It cost \$3.24. How much did each water cost?

$$30 \div 3 =$$

In the equation  $29 \times 326 = 9,454$ , which number is the product?

6, 8, 10, 12, 14, 16,  
\_\_\_\_\_, 20, 22, 24

How many total legs are on 6 dogs?

$$8 - 5 + 2$$

It was 6 degrees below zero in the morning. By afternoon the temperature rose 19 degrees. How warm was it?

Know how many inches in a foot? Okay, smarty pants, how many inches in 9 feet?

How many minutes is it from 6:00 a.m. to 11:40 a.m.?

$$(11 + 10) - 3$$

Round 99,360 to the nearest hundred.

A rectangle is 47 cm on one side and 12 cm on another side. What is the perimeter?

☐

I did page 17

☐I decided to skip this page  
edHelper

Name: \_\_\_\_\_

Spin again.

I needed to spin \_\_\_\_\_ time(s) to finish.

Rose has 40 books. She organized them equally into 5 boxes. How many books in each box?

How much greater is 183 than 32?

Write the greatest possible 4-digit number using only 3 different numbers.

Name the shape with six sides and six angles.

Double the number 9 three times.

$$28 \div 7 =$$

It was 2 degrees above zero in the morning. By afternoon the temperature rose 20 degrees. How warm was it?

Round 78,725 to the nearest hundred.

The perimeter of a rectangle is 18 cm. The longer side is 6 cm. How long is the shorter side?

Write  $\frac{4}{8}$  in lowest terms.

It was 2 degrees below zero in the morning. By afternoon the temperature rose 20 degrees. How warm was it?

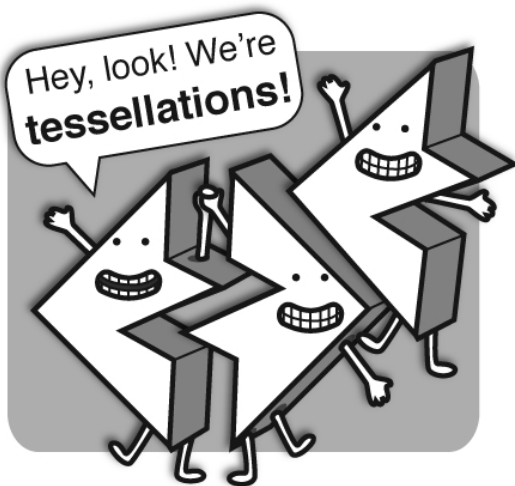
$$9\frac{1}{3} + 5\frac{2}{3}$$

$$43 + n = 57$$

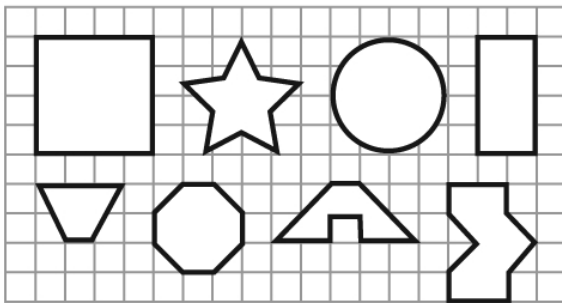
E, H, F, I, G, J, H, K,  
\_\_\_\_\_, L

What is the area of a rectangle with sides 5 cm and 7 cm?

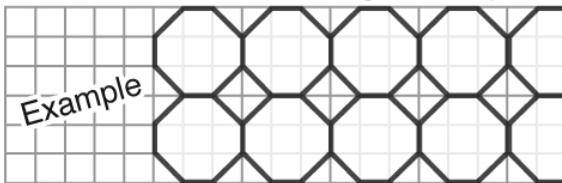
Name: \_\_\_\_\_



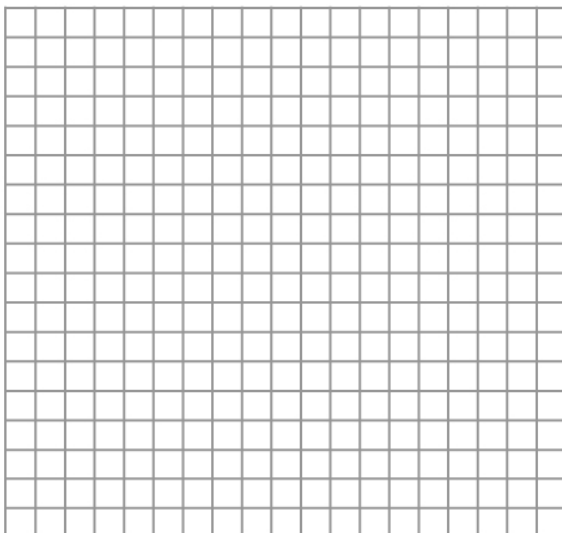
Shade the shapes that will **tessellate**; repeat to form a pattern without leaving any gaps or overlapping.



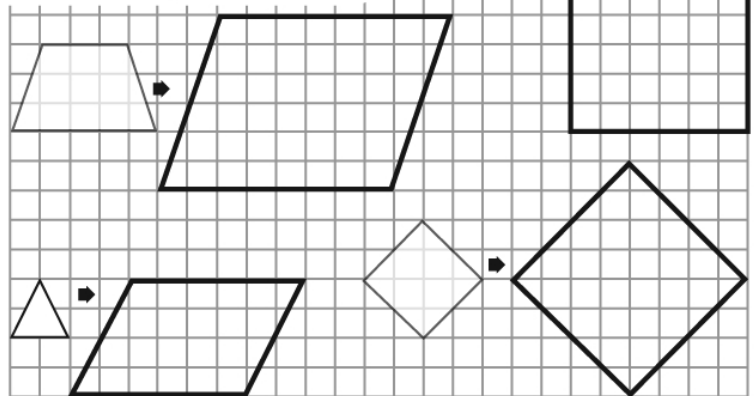
Create a tessellation using two shapes:



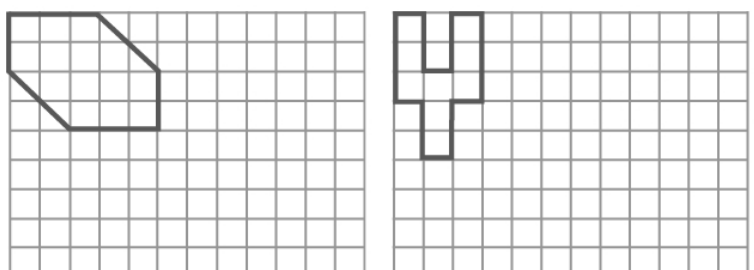
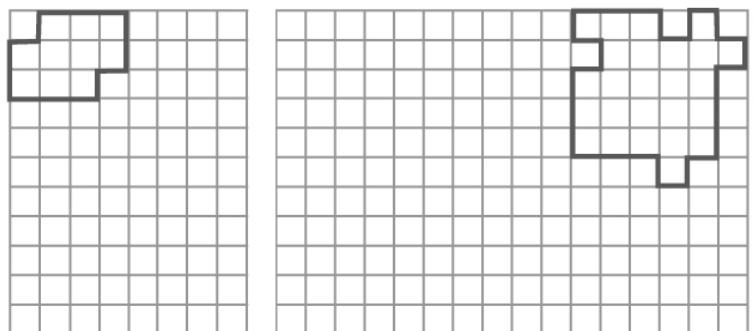
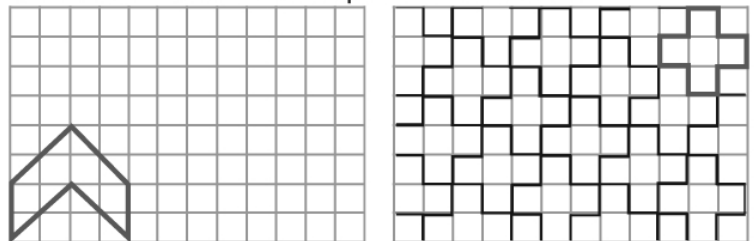
Create and Color



Use each shape to create a pattern that fills the entire box. The shapes cannot overlap, and there can be no spaces.

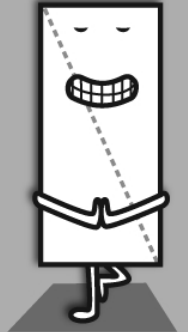


**Tessellate** each shape to fill the area. Example:



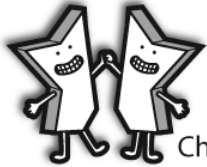
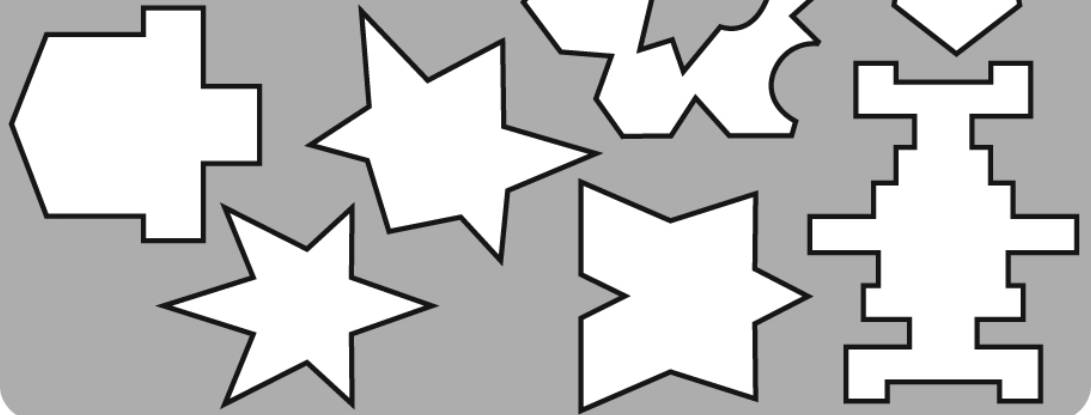
Name: \_\_\_\_\_

## Seeking Symmetry

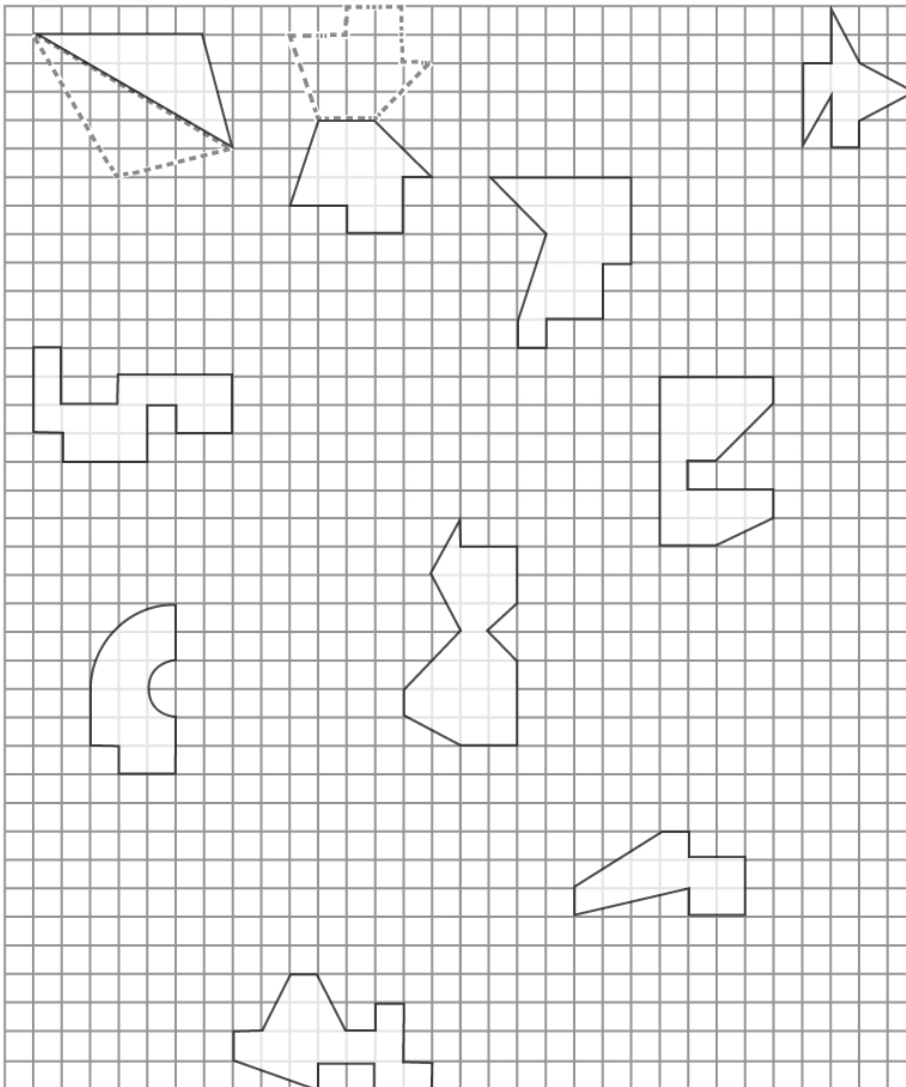


Divide each figure into congruent shapes by finding the “**Line of Symmetry**.”

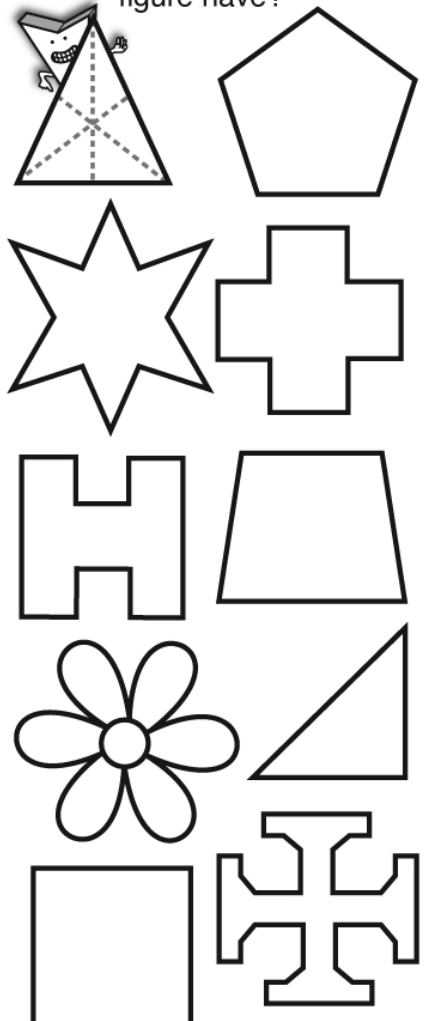
★ **Line of Symmetry:** the line where if you folded the shape the two sides would be exactly the same.



Choose a **Line of Symmetry** and create a symmetrical figure.



How many **Lines of Symmetry** does each figure have?



Name: \_\_\_\_\_

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.

		2	1	2	1	2	1
		3	5	3	4	3	4
1		4	1	2	1	5	1

An entire block with 5 spaces is blank. Since the block is 5 spaces it uses the numbers 1-5.

2 5 1 4 3

3	4	5	3	1	3		
1	2	1	4	2	4	1	
4	5	3	5	3	5	2	
2	1	2	1	2	1	3	

An entire block with 5 spaces is blank. Since the block is 5 spaces it uses the numbers 1-5.

1 2 5 4 3

	3	2	4	1	4		2
	5	1	5		5		5
1	2			1	4	2	1

Hint - These numbers are missing:

3 3 1 1 3 2 4

1	2		3	1	3	2	
	4	5	4	5		5	
2	1	3		1	2	1	

Hint - These numbers are missing:

1 4 3 3 4 2 4

Write 37,500 in words.

\_\_\_\_\_

Name: \_\_\_\_\_

### Sudoku Sums of 16

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 16.

Here is an example of a sudoku sum of 16:

13	3
----	---

6								
			5		4			
	4	9		2				5
	5	3		7		2		
	2	4			8	5	6	3
			2				9	7
	7	6		9				
8	9				1			

$$\begin{array}{r} 40 \\ + 39 \\ \hline \end{array}$$

$$4 \times 3 =$$

$$\begin{array}{r} 435 \\ - 286 \\ \hline \end{array}$$

For 856,669,750, write the digit that is in the hundred thousands place.

\_\_\_\_\_

Name: \_\_\_\_\_

**FUN  
BREAK!**

# Play a game online!

[edHelper.com/math-games.htm](http://edHelper.com/math-games.htm)**I PLAYED  
ONE  
GAME**☐(Check the  
box after  
you play.)**MY SCORE**

\_\_\_\_\_



Change to a percent.

$$\frac{53}{100}$$

Change to a percent.

$$\frac{72}{100}$$

Find 92% of 89.

double 22 =

What is 16 less than 1,599?

Anne has \$30. She wants  
to buy something that costs  
\$91. How much more does  
she need?

$$1 \text{ kg} = 1,000 \text{ g}$$

$$29 \text{ kg} = \text{_____ g}$$

Name: \_\_\_\_\_

Peter tried to measure his resting heart rate. His heart beat a total of 34 times in 44 seconds. Holly measured hers. She counted a heartbeat of 175 in 150 seconds.

Well-trained athletes tend to have resting heart rates that can be as slow as 40 beats per minute. Would you guess that Peter or Holly was a well-trained athlete?

In a game that Pam plays, it costs \$0.90 to purchase three gold stones. If she buys two gold stones and one purple diamond, the cost is \$1.42.

How much is one gold stone?

How much is one purple diamond?

One gold stone costs \_\_\_\_\_.

One purple diamond costs \_\_\_\_\_.

Jessica is doing some mental math. She picked a number from a hat. Then she added 2 to that number. She then multiplied the sum by 8. The result she got was 40. What number did Jessica start with?

Sarah picked a number from the hat and did the same thing, but her result was 8 more than Jessica's result. What number did Sarah start with?

Which fraction is larger?

$$\frac{3}{5} \text{ or } \frac{27}{40}$$

$$\frac{1}{56} \text{ or } \frac{17}{21}$$

$$\frac{13}{14} \text{ or } \frac{5}{8}$$

**Name:** \_\_\_\_\_

Mrs. Miller is the best gym teacher. "Today, we are going to play 1 on 1 basketball. Each game will be 3 minutes long, and you have to play everyone else in the class," Mrs. Miller said.

The gym has 6 basketball courts, and there are 12 kids in this class.

Everyone has to play everyone else. A game lasts 3 minutes, and there are about 30 seconds between each game. How long will it take to do this?

Show your work.

Name: \_\_\_\_\_

April likes to multiply a number by itself. Why? Nobody knows!

"If I take my favorite number and multiply it by itself, the product will be only 19 away from 83. Can you guess my favorite number?" asks April.

Which two of the fractions have a difference of  $\frac{3}{10}$ ?

$$\frac{2}{7}$$

$$\frac{4}{6}$$

$$\frac{11}{12}$$

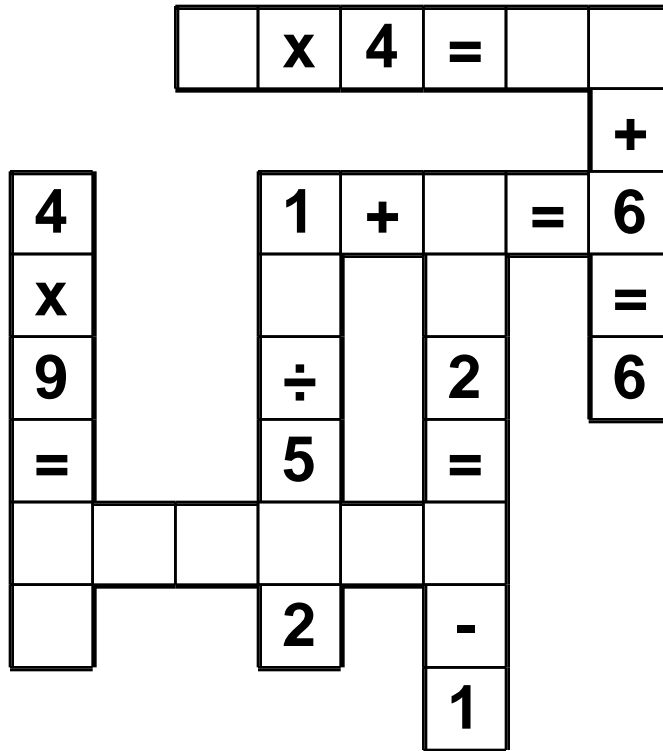
$$\frac{1}{5}$$

$$\frac{1}{2}$$

Name: \_\_\_\_\_

5 • 2 • 0 • 5 • 0 • + • 3 • x • 6 • = • 1 • 8 • 6

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



$$11 \times 2 + 12 + 4$$

What is the sum of 10 and 587?

Hannah bought a pack of six waters. It cost \$3.54. How much did each water cost?

X, \_\_\_\_\_, H, X, 1, H, X,  
1, H, X, 1, H, X

Circle the four numbers whose sum equals 46.

4      3      3      17  
16      18      19      8

Is 854 closer to 800 or 900?

Name: \_\_\_\_\_

One year on Pluto is equal to 248.54 Earth years. Round the decimal off to the nearest tenth.

There are 150 students going on a trip to Gettysburg, PA. They will ride buses that will hold 48 students each. How many buses they will need?

There were 13 turkeys in the pen. Six more turkeys joined them. Three turkeys were taken out of the pen and put in the barn. Write an expression to find the number of turkeys left in the pen. Solve it.

You need to add what to 77 to get 86?

How many total legs are on 15 elephants?

Name the shape with four sides and four angles.

Sarah and Emma are making gift baskets. They have 30 pieces of peanut butter fudge, 12 peanut butter cookies, and 12 silk flowers. All the baskets must have the same number of each item with no items left over. How many baskets can they make?

Justin and Kevin built a ramp to help them do roller skating stunts. The edges of the ramp formed a triangle with sides that were 4.3 feet long, 5.3 feet long, and 2 feet long. What is the perimeter of the triangle?

On the first day of autumn, it rained 2.06 in. The next day it rained 1.8 inches. How much more did it rain the first day than the second?

Write a letter that has two or more lines of symmetry.

\_\_\_\_\_

Circle the answer that best completes the sentence.

On Monday, I (will/would) go ice skating.

$$40 \div 4 =$$

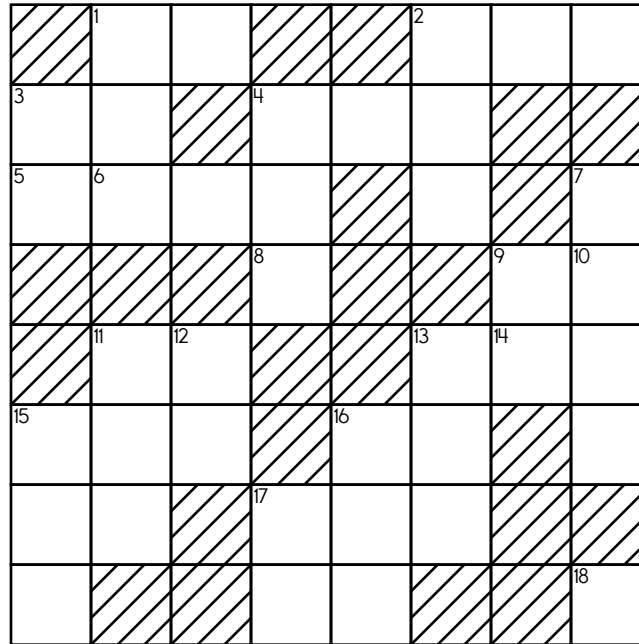
Name: \_\_\_\_\_

### ACROSS

1. Two times 14-Across
2. 7-Across plus 4-Down
3. **9 + 13**
4. Nickels in nine dollars
6. Six times 14-Across
7. One-sixth of 14-Across
8.  $4 + 4 = 2 \times \underline{\hspace{1cm}}$
14.  $4 + 14$
17. Two less than 4-Across
18. One-fifth of 12-Down

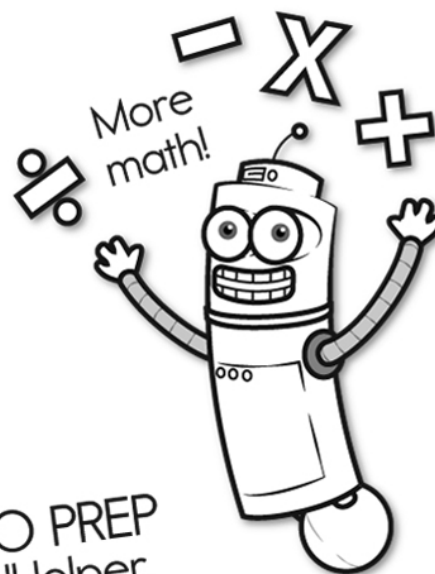
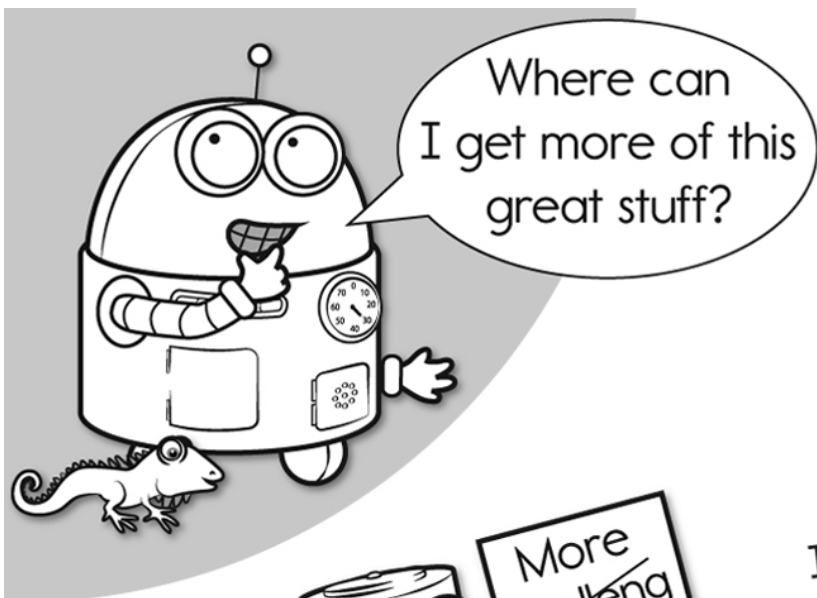
### DOWN

2. One less than 6-Across
4. Six more than 17-Across
5. One-ninth of 14-Across
9. Five more than 1-Across
10. Five more than 4-Down
11. Seven less than 10-Down
12.  $9 + 11$
13. 8-Across plus 4-Down
15. Five more than 4-Across
16. 11-Down plus 10-Down
17.  $6 + 11$



Holly wants Emma to guess a two digit number. She tells Emma that her number has two different digits. The digits are 8 and 1. Emma thinks. She then guesses the number 18. What are the chances that Emma has guessed correctly?

$$\begin{array}{r} 67 \\ - 49 \\ \hline \end{array}$$



It's NO PREP at edHelper.

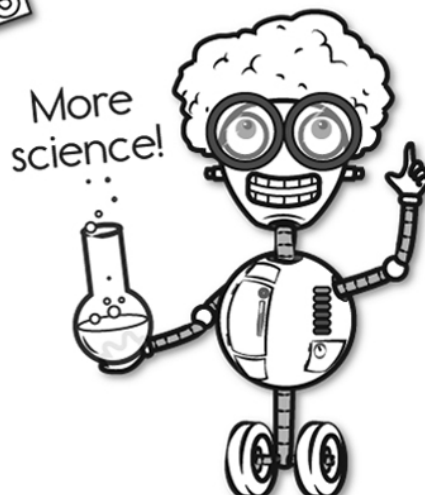
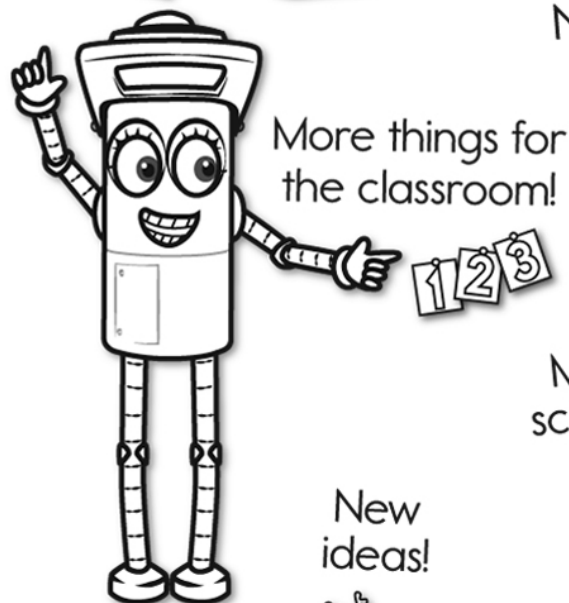
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$\times$   
 $\times =$   
 $- \div$   
 $< - >$

More puzzles!

