

21

+12

-1

-14

-11

+66

48

-16

-8

+3

+4

+62

-71

43

+5

-17

+15

-2

+7

38

+6

6.5

4.1

5.2

28.2

47

9.2

41.7

27.2

44.7

35.4

21.7

3.1

36.5

34.6

40.2

43

4.1

5.2

odd

odd

either 27.2 or 1.2

odd

26 to do:

Skip 2 pages.

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Challenge Math

Book 30

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: 27.2, 28.2, or 21.7.

The other three numbers have to all be DIFFERENT and must be from these: 3.1, 6.5, 1.2, 5.2, 4.1, or 9.2.

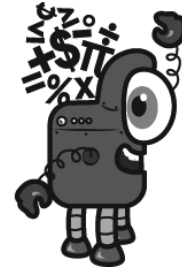
edHelper.com

Fun Math

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 6 in your head

add 3

subtract 8

Write the number.

\_\_\_\_\_ A

imagine 7 in your head

add 4

multiply 4

add 8

add 6

Write the ones digit.

\_\_\_\_\_ B

imagine 3 in your head

add 1

add 5

double it

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

\_\_\_\_\_ C

imagine 4 in your head

multiply 11

double it

add 1

add 2

add 8

Write the ones digit.

\_\_\_\_\_ 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?

\_\_\_\_\_ e \_\_\_\_\_ - \_\_\_\_\_ v \_\_\_\_\_ n \_\_\_\_\_

5 before 18 \_\_\_\_\_

9 after 11 \_\_\_\_\_

8 after 14 \_\_\_\_\_

8 before 14 \_\_\_\_\_

4 after 19 \_\_\_\_\_

3 after 12 \_\_\_\_\_

3 before 17 \_\_\_\_\_

7 after 16 \_\_\_\_\_

2 after 17 \_\_\_\_\_

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

Write the reciprocal.

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

$$9 - \frac{4}{5} + \frac{1}{2} =$$

Write the reciprocal.

12

Change  $\frac{108}{16}$  to a mixed number.

$$\frac{1}{2} \times \frac{5}{11} =$$

$$6 \times \frac{2}{7} =$$

$$\begin{array}{r} \frac{1}{2} \\ - \frac{1}{5} \\ \hline \end{array}$$

Find the least common denominator.

$$\frac{8}{9} \text{ and } \frac{6}{18}$$

$$\frac{5}{8} \times \frac{3}{4} =$$

Write the reciprocal.

$$\frac{12}{15}$$

$$10 + \frac{7}{10} + \frac{3}{5} =$$

$$60 - \frac{2}{3} =$$

☐

I did page 3

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

Anna is having a birthday party.

Anna loves math. So she decided to put up a huge math banner, which read: "Riddle me this. If you triple my age and then subtract 11, that would be the same as if you doubled my age and then added 6."

A friend of a friend came to the party. Her name was Sally, and she had never met Anna. "Nice to meet you. So, like, how old are you for real?"

Anna just laughed and pointed to the banner.

Show your work.

Solve the banner riddle for Sally.

☐

I did page 4

☐I decided to skip this page  
edHelper

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

The cafeteria workers used 51 heads of lettuce to make salads for the students at Ames Middle School. There are 6 heads of lettuce in each case. Write an equation and solve it to find out how many cases of lettuce were used. Write your answer as a mixed number.

Eric and Megan each have a candy bar of a different kind, but each candy bar is the same size. If Eric has a candy bar divided into fifths and Megan has a candy bar divided into sixths, how many fair trades can they make to share their candy bars? What trades are possible? Hint: Make a sketch of the candy bars.

If  $s = -4$  and  $t = 24$  then what is  $4s - 15t - 2t = ?$

Simplify.

$$\begin{array}{r} 7,800 \\ 35,100 \end{array} =$$

$$(15 + 13 + 8 + 9) =$$

Emily is a very good runner. Her fastest time for the 100-yard dash is 11.9 seconds. Her fastest time for the 220-yard dash is 26.4 seconds. How much longer does it take her to run the 220-yard dash?

Sammy Shark bought three programs for the floor show for \$27.6. If his brother Sal bought seven programs at the same price per program, what would the total cost be?

Mrs. Jackson likes licorice tea. She can buy one box of licorice tea for \$4.27. She can buy two boxes of tea for \$8. How much will she save if she buys two boxes at the same time?

What is the greatest common factor of the numbers 120 and 30?

$$15p - 19.2 = 100.8$$

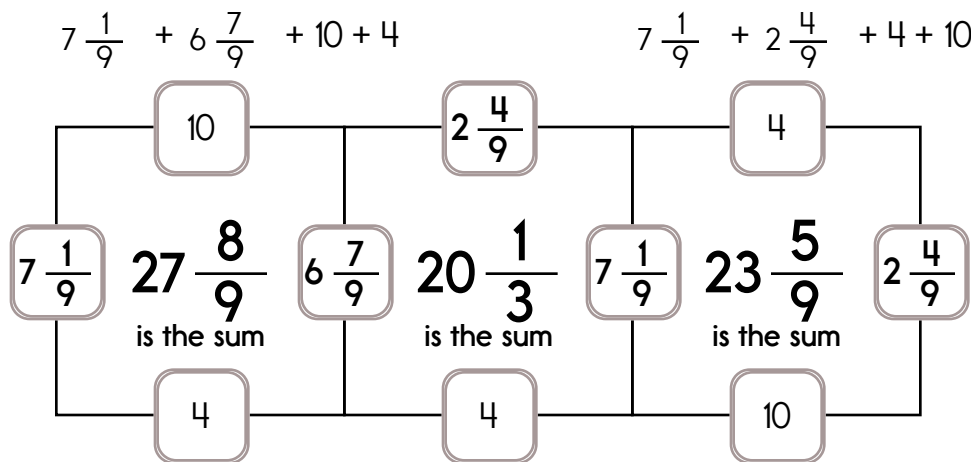
$$p =$$

$$0.3 (0.5 (0.3 + 4)) =$$

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

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

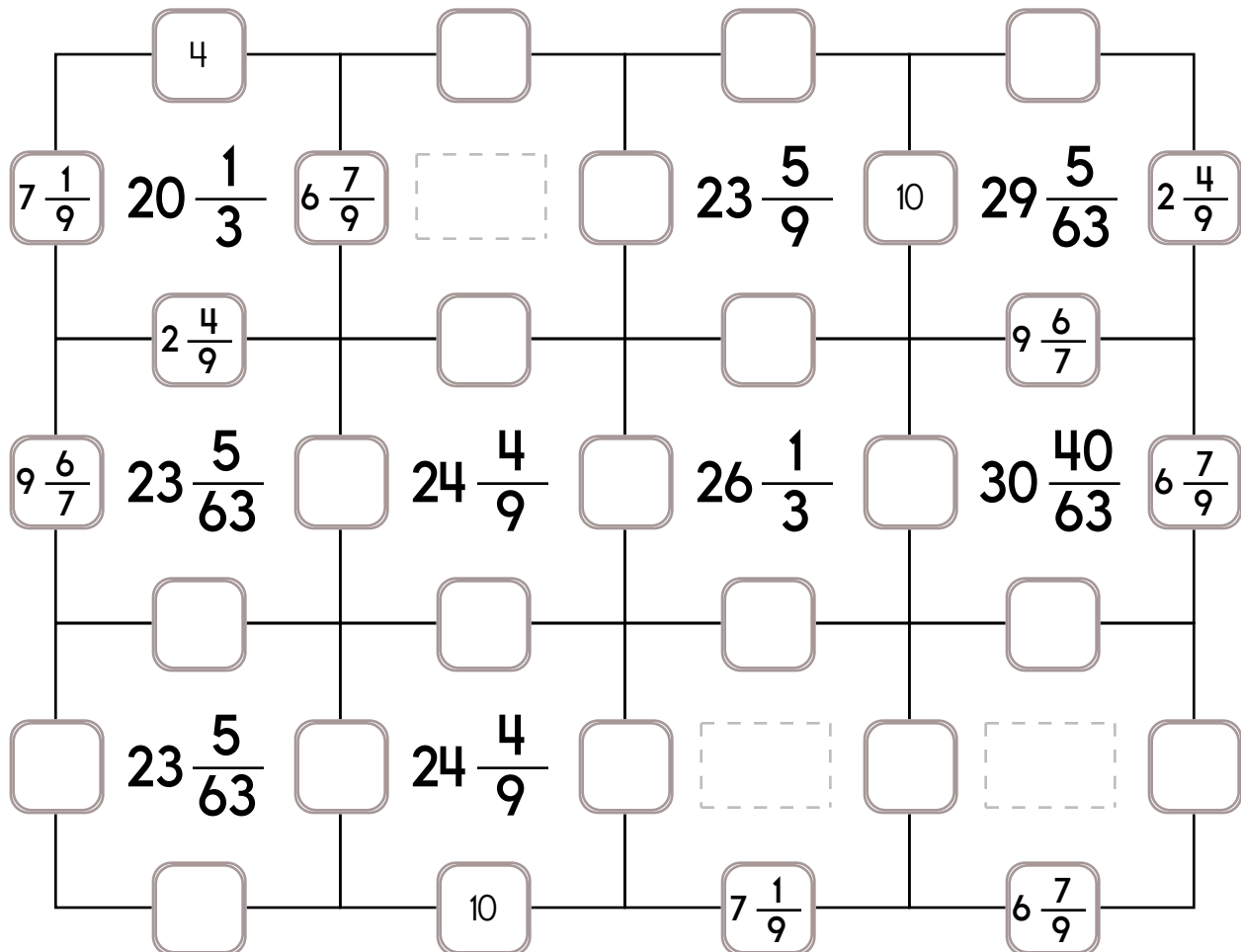
Sample:



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:  $7\frac{1}{9}$ ,  $3\frac{2}{3}$ , or  $9\frac{6}{7}$ .

The other three numbers have to all be DIFFERENT and must be from these: 10, 4,  $2\frac{4}{9}$ , or  $6\frac{7}{9}$ .



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

Fill in the missing numbers. How? The sum of the four surrounding numbers is in the center of each square.

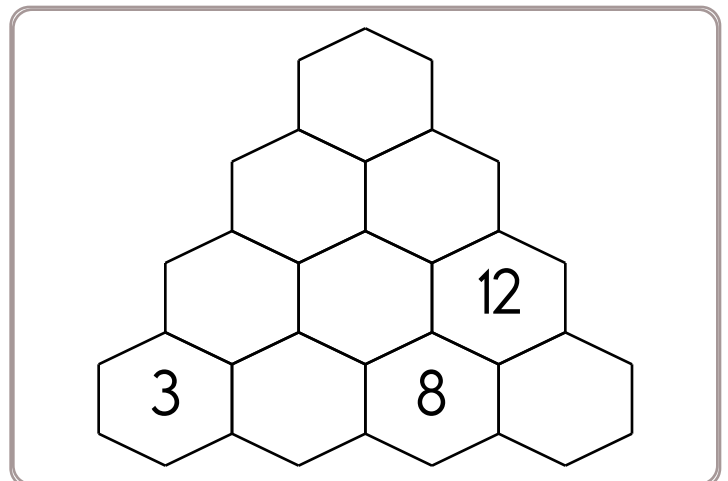
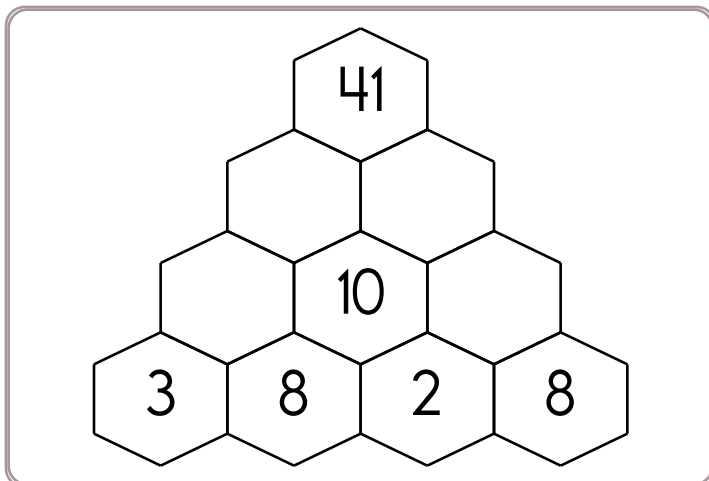
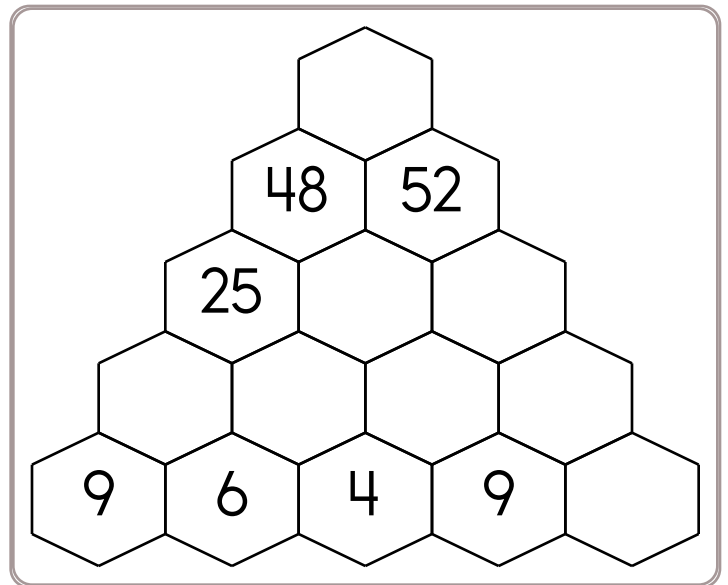
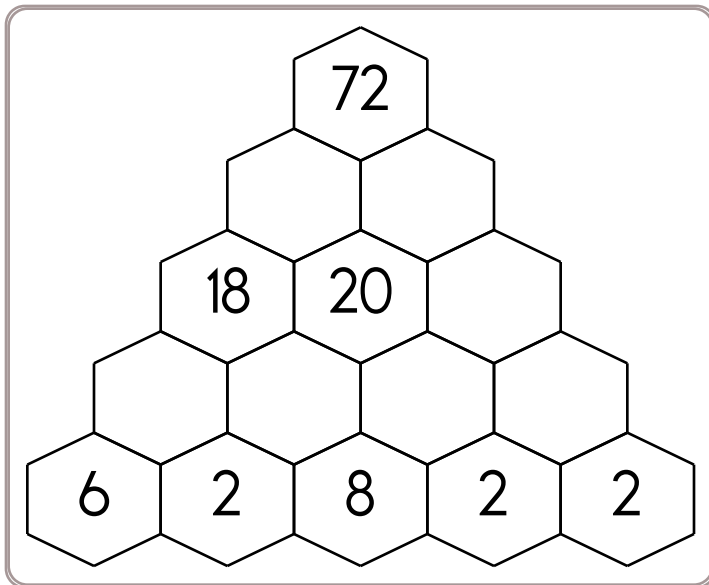
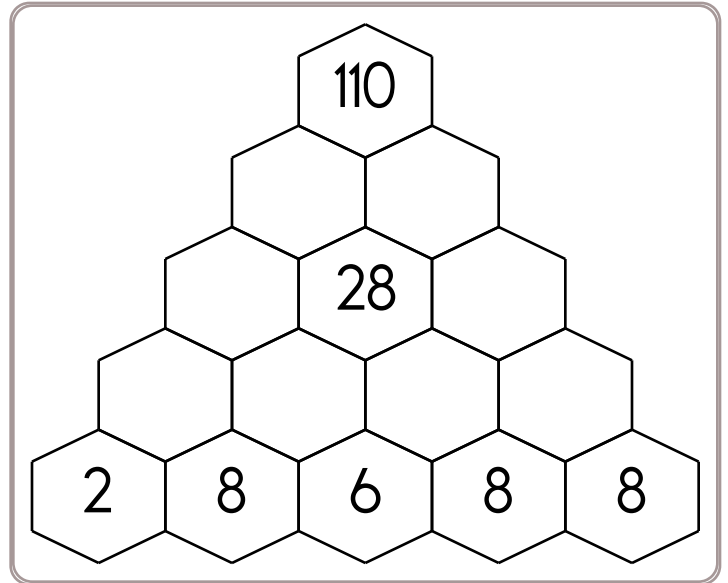
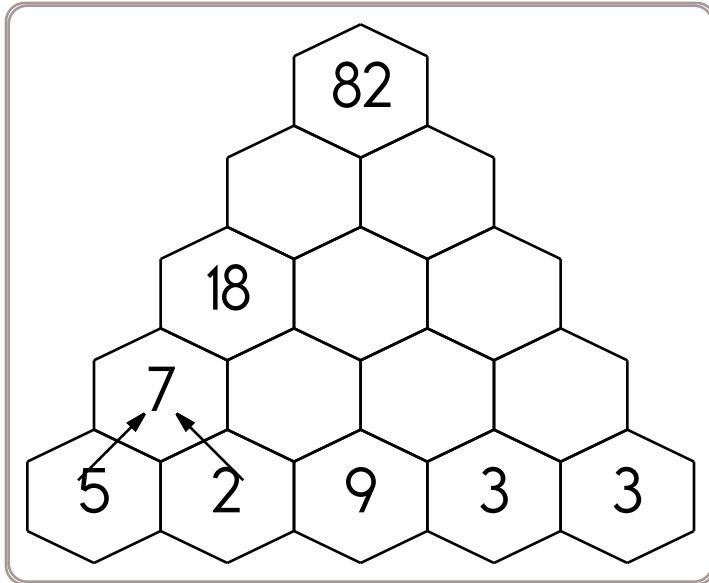
Exactly one of the four numbers has to be one of these numbers:  $8\frac{2}{9}$ ,  $1\frac{1}{2}$ , or  $\frac{3}{4}$ .

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

	$4\frac{4}{9}$		5				
5	$12\frac{5}{18}$	$1\frac{1}{3}$	$11\frac{1}{12}$		$14\frac{7}{36}$	5	$21\frac{2}{3}$
	$1\frac{1}{2}$						
	$11\frac{5}{6}$		$11\frac{1}{12}$		$10\frac{19}{36}$		$14\frac{7}{36}$
	$12\frac{5}{18}$				$11\frac{5}{6}$		$21\frac{2}{3}$
	$11\frac{19}{36}$		$21\frac{2}{3}$		$11\frac{5}{18}$		19
	19		$14\frac{7}{36}$				

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

Fill in the blanks by adding the two numbers below each hexagon.





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

The Smithson family is going to visit family in California for spring break. They plan to spend  $\frac{1}{3}$  of their time fishing,  $\frac{1}{4}$  of their time swimming,  $\frac{1}{4}$  of their time just relaxing, and the rest of their time at an amusement park.

Approximately what fraction of time will the Smithson family spend at the amusement park?

What percentage of time will the Smithson family spend doing water sports? Round to the nearest whole number.

If the Smithson family wanted to spend 50% of their time relaxing, which activity or activities should they give up? List all possible choices and/or combinations, including those that would allow for nearly 50% relaxation.

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

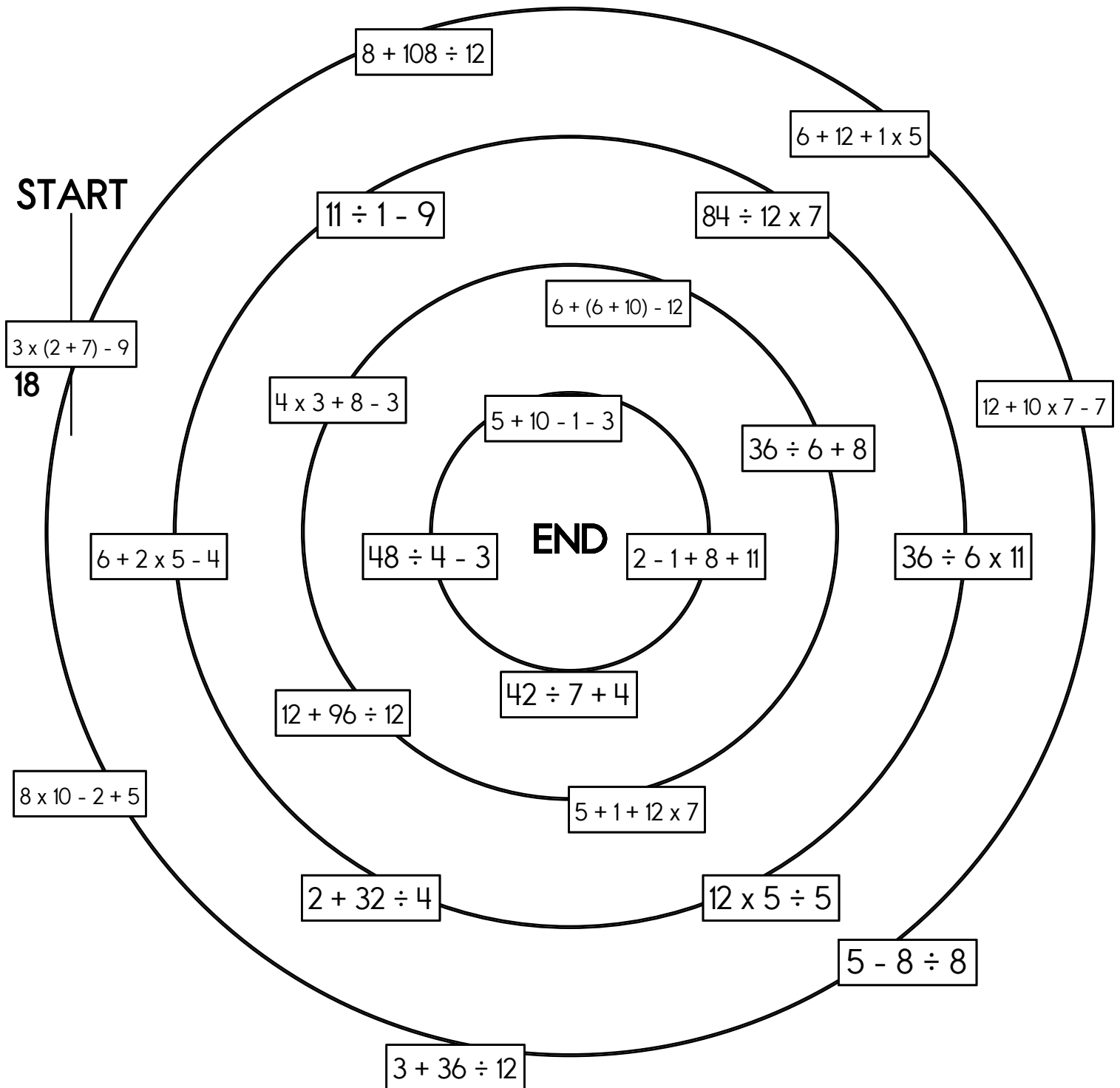
Draw a line from START to END.

~~18~~  
14

9

49

Cross out the number you use above and then write it below.



☐

I did page 10

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

Adam bought 17 packages of hot dogs for the National Hot Dog Month picnic. Each package weighed 12 ounces. How many pounds of hot dogs did he buy?

Nathan made a delicious apple spice cake for the Fall Festival. He cut each cake into 10 pieces. So far, he has sold  $\frac{1}{5}$  of the cake. How many pieces has he sold?

Rewrite this mixed number as an improper fraction.

$$7\frac{10}{11}$$

At the mud factory, Purple's job is to scoop up mud and make it into kilogram blocks of mud. She loves her job! Today there were 77,915,727 milligrams of mud trucked in. Each mud block is precisely 1 kilogram, no less, no more. How many mud blocks can she make today?

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

$$\frac{2}{8} \times \frac{6}{10}$$

If  $v = 9$  and  $a = -52$  then  
what is  $9v + 9a - 2a = ?$

$\$87 - p = \$22$   
What is the value of  $p$ ?

Circle the percentage that  
is closest to 11 out of 70:

11%  
46%  
72%

$$44 \div 11 + 11$$

$$\frac{3}{16} \div \frac{1}{4} =$$

$$0.5 \times 0.07$$

$$725 \div 10$$

Simplify.

$$\frac{62}{93} =$$

Rewrite as an algebraic  
expression or equation.

The quotient of 154 and 14  
is  $f$ .

Find the least common  
denominator for the  
fractions  $\frac{2}{27}$  and  $\frac{7}{24}$ .

Rewrite as an algebraic  
expression or equation.

Three thousand, five  
hundred thirty-nine minus  
the product of  $x$  and 40.9.

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

$$0.7 (0.2 (0.7 \times 3)) =$$

Simplify.

$$\frac{36}{63} =$$

$$\text{If } 5x = 90, \text{ then } x =$$

$$7 \times 56 \div 7 - 24 \div 4 =$$

In what quadrant would you find the point  $(-6, 17)$ ?

$$0.7 \times 0.4$$

What is the remainder of 61 divided by 7?

$$|-13| + g = 7$$

$$g =$$

$$\frac{3}{5} \times \frac{4}{5}$$

Write as an algebraic expression.

142.4 divided by the difference of  $n$  and  $g$

Rewrite  $\frac{49}{100}$  as a decimal.

Circle the least amount:

24%

0.15

$$\frac{8}{25}$$

$$|-14| + z = 20$$

$$z =$$

$$19.3061 \times 10^2 =$$

$$(0.6)(0.11)$$

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

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.

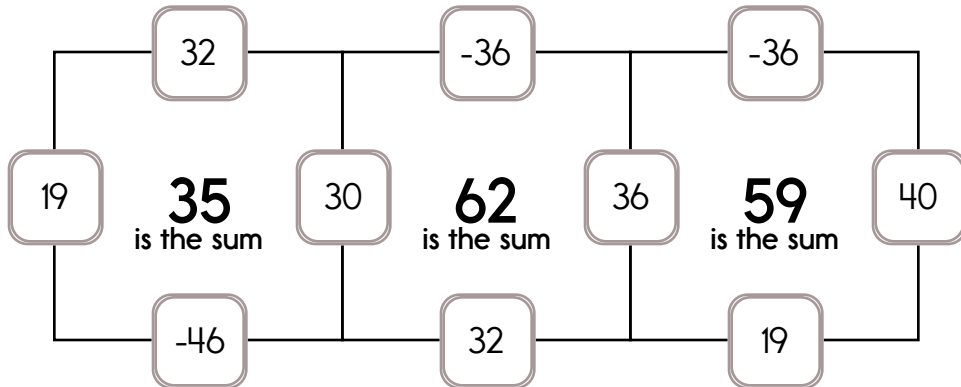
Example:

$$19 + 30 + 32 + (-46) = 35$$

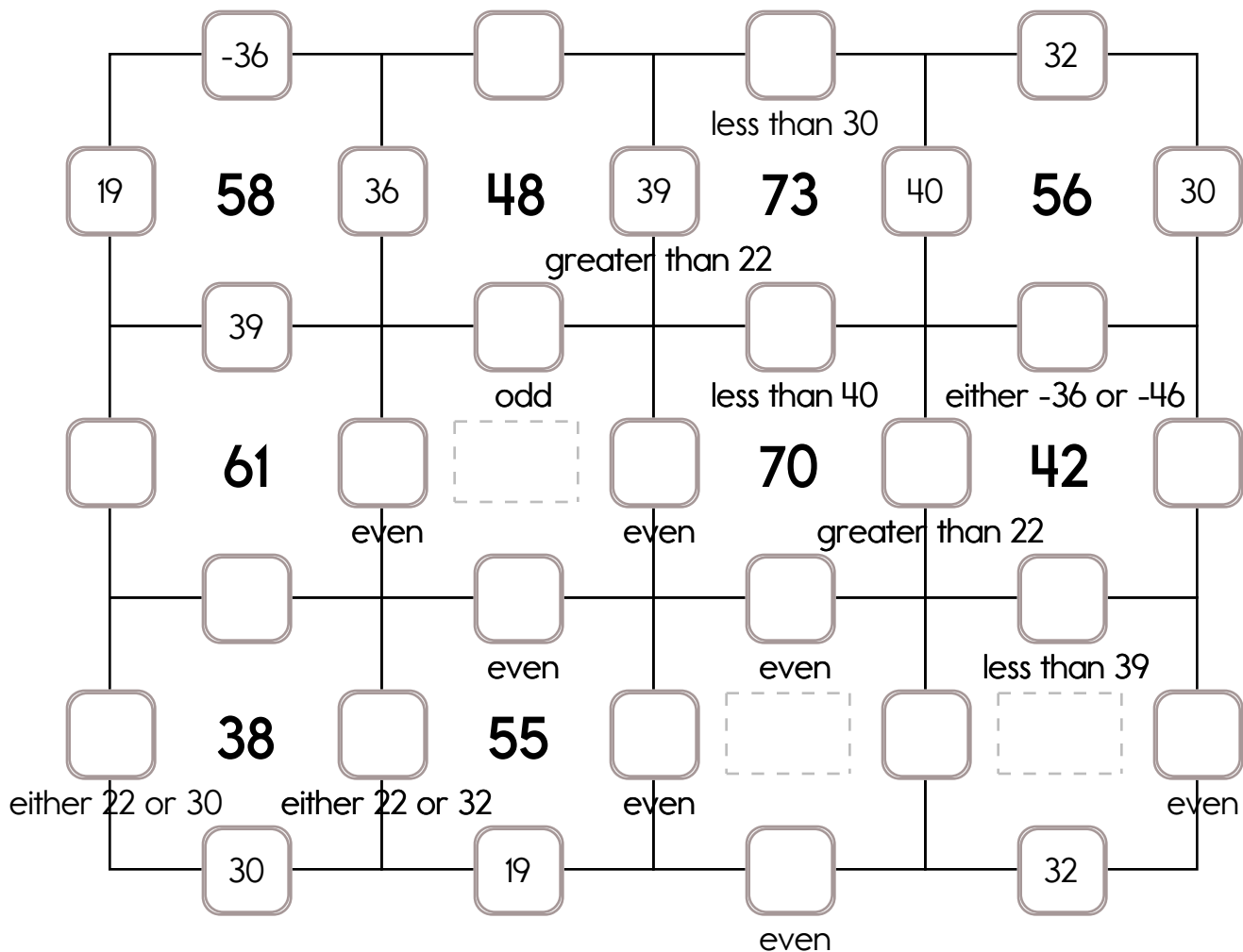
Example:

$$36 + 40 + (-36) + 19 = 59$$

Sample:



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: -46, -40, or -36. The other three numbers have to all be DIFFERENT and must be from these: 19, 32, 22, 39, 40, 30, or 36.



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
		4	3
2	3	2	1
4	1	4	3

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

4 1 2 3

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

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

4 3 2 1

1	2		2	1
3	4	3		3
	1			2

Hint - These numbers are missing:

1 1 4 2 2

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

Hint - These numbers are missing:

4 2 4

5 tens and 1 one

☐ 5    ☐ 51    ☐ 1

$14 - 7 = \underline{\hspace{2cm}}$

☐ 7    ☐ 1    ☐ 4

$4 + 0 = \underline{\hspace{2cm}}$

☐ 4    ☐ 4    ☐ 3

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

Fill in the missing numbers.

Only rule - The same number CAN NOT be next to each other, in ANY direction.

	1	3	
		2	4
	1	3	1

Hint - These numbers are missing:

2 3 2 4 1

	2		3
4			
1	2	4	3

Hint - These numbers are missing:

1 2 4 3 1

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

Hint - These numbers are missing:

2 2 4 2 2 2 1 3

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

Hint - These numbers are missing:

4 3 1 3 3 3 2 4

What is ten more than 75?

29, \_\_\_\_, \_\_\_\_, \_\_\_\_, 33,  
\_\_\_\_, 35

96, \_\_\_\_, \_\_\_\_, \_\_\_\_,  
\_\_\_\_, \_\_\_\_, 102



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

Circle the bigger number. Put a square around the smaller number.

6.6 tenths

56.4 hundredths

Nathan is making his favorite ultimate chocolate chip cookies for a huge party at school. He just finished dropping rounded tablespoons of dough on his cookie sheet and was able to fit 16, which will make 16 cookies. The problem is that he needs to make 69 cookies for his party, and his oven can only fit one cookie sheet at a time. How many times will he have to put a cookie sheet into the oven to make enough cookies?

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

Which two of these numbers have a product of 16.79?

7.3

2.3

0.52

0.073

0.23

0.023

5.2

0.73

What is the number that is  
6 less than 5?On a number line, what is  
the number that is 9  
spaces right of -4?Rewrite  $8 - 1$ 

\_\_\_\_ + \_\_\_\_ = \_\_\_\_

How much money is 1  
quarter, 1 dime, 8 nickels,  
and 1 penny?How many centimeters in  
3.4 meters?The radius of a circle is 529  
cm. What is the diameter  
of this circle?Holly rolls a die. What is the  
chance of her rolling a 5?  
\_\_\_\_\_

28 cm = \_\_\_\_\_ mm

 $8 \times 8 =$  \_\_\_\_\_

☐

I did page 18

☐I decided to skip this page  
edHelper

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

The area of a square is 82.81 square inches. What is its perimeter?

Write the reciprocal.

$$\frac{5}{19}$$

Write the reciprocal.

$$\frac{22}{4}$$

Write the reciprocal.

7

Round the decimal 0.435 to the nearest hundredth.

Round 58,664 to the nearest hundred.

A toy car can go 3 mph. How long would it take to go 4 miles?

How many feet are in 8 yards?

\_\_\_\_\_ feet

$$33 \div 3 = \underline{\hspace{2cm}}$$



**Name:**

The block below is the sum of the two blocks above. Fill in the missing blocks.

[illegible]

	$\frac{7}{9}$			4
		$6\frac{4}{9}$		
		17		
	$24\frac{5}{9}$			

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

Draw a line to match each problem with the same answer.

95% of 100

62% of 50

94% of 100

65% of 60

76% of 125

96% of 150

25% of 156

47% of 200

31% of 100

75% of 192

30% of 50

76% of 125

77% of 200

88% of 175

95% of 100

75% of 20

$12 \times 1 + 12 \times 3$

$9 \div \frac{1}{4}$

What is the area of a rectangle with sides 5 cm and 11 cm?

S, I, P, H, M, G, J, F,  
\_\_\_\_\_, E

$33 + n = 45$

C, G, K, O, \_\_\_\_\_, W

Round 15,506 to the nearest thousand.

How many meters are there in 23 kilometers?

How many centimeters in 3.6 meters?

☐

I did page 21

☐I decided to skip this page  
edHelper

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

Get a fidget spinner! Spin it.

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

$$8\frac{2}{8} + 4\frac{5}{8}$$

Estimate quickly the  
difference.  
 $7,690 - 1,180$

What 5 coins add up to 50  
cents?

It's 10:00 a.m. and Wendy is  
getting ready for soccer  
practice. If practice starts  
at 3:50 p.m., then how  
much longer until soccer  
starts?

34, 8, 49, 21, 64, 34,  
79, 47, \_\_\_\_\_, 60, 109,  
73, 124, 86

$$5 \times 7 + 12$$

Know how many inches in  
a foot? Okay, smarty pants,  
how many inches in 6 feet?

D, K, E, \_\_\_\_\_, F, M,  
G, N, H, O

$$(10 - 2) + 3 - 1$$

What is 50% of 994?

8, 16, 24, \_\_\_\_\_, 40,  
48, 56

Write  $\frac{6}{9}$  in lowest  
terms.

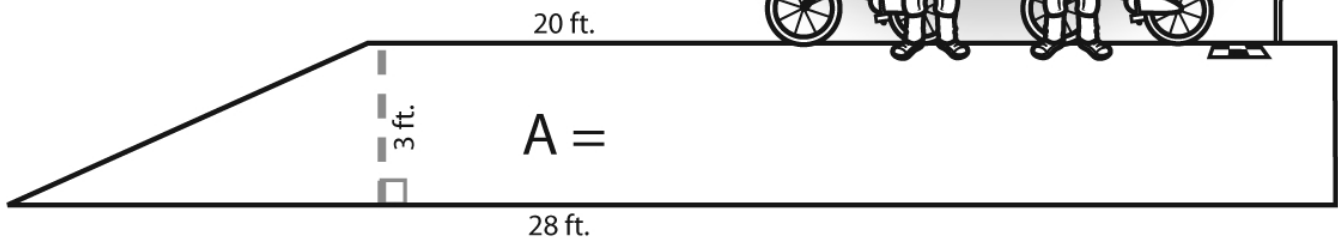
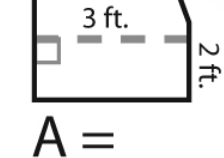
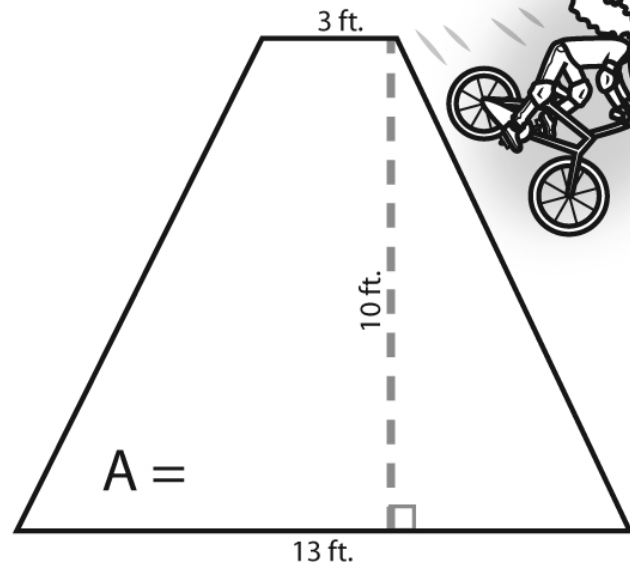
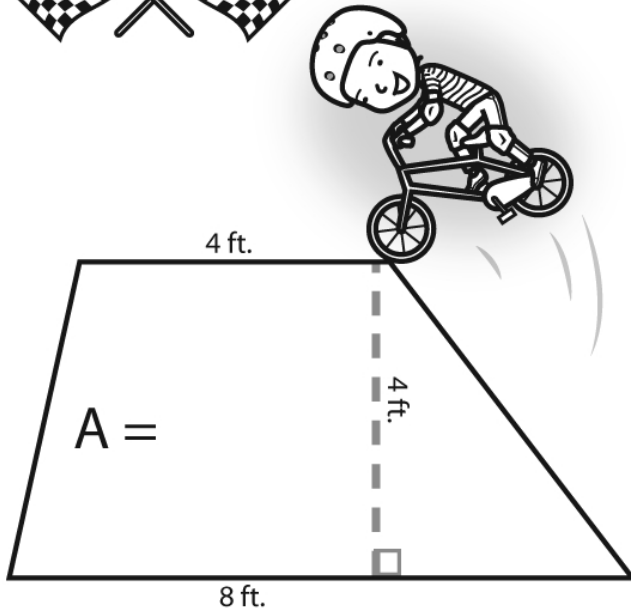
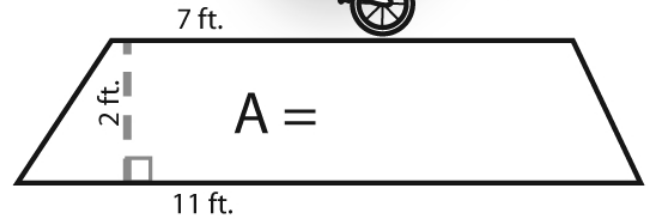
☐

I did page 22

☐I decided to skip this page  
edHelper

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

# Trapezoid AREA



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

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

3 4 1 2

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

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

4 2 1 3

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

Hint - These numbers are missing:

2 1 4 1 3 1 1 3

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

Hint - These numbers are missing:

4 1 3 1 1 1 2 4



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

Fill in the missing numbers.

Only rule - The same number CAN NOT be next to each other, in ANY direction.

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

Hint - These numbers are missing:

2 1 3 1 2  
3 4 4 1 1

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

Hint - These numbers are missing:

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

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

Hint - These numbers are missing:

1 4 2 1 3  
3 4 3 1 4

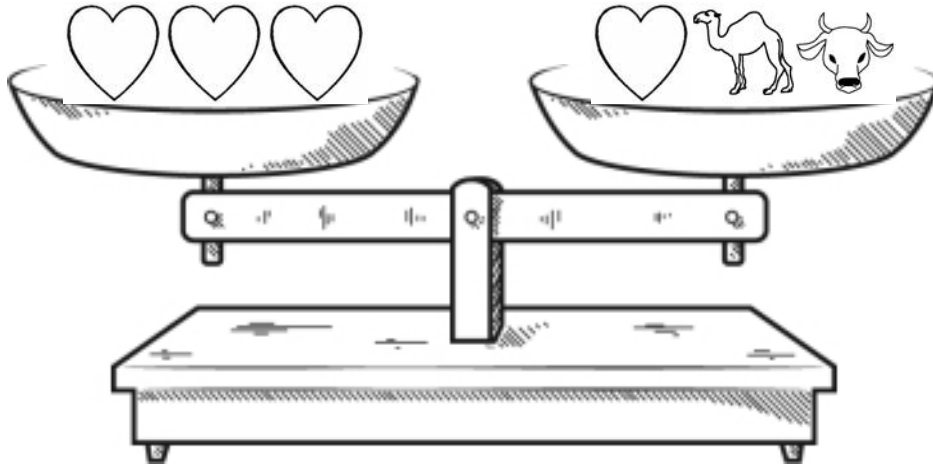
2	1		3		3
4		2			1
	1	4		4	3
	3	2			1

Hint - These numbers are missing:

3 3 2 2 4  
1 2 4 4 1

$$86,318 + 11,192 = \underline{\hspace{2cm}}$$

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



It may help to give values to pictures.

$\text{Heart} = 12$

$\text{Cow} = 10$

$\text{Camel} = \underline{\hspace{2cm}}$

You should only mark TRUE if you are absolutely sure it is correct!

$\text{Heart} + \text{Cow} = \text{Heart} + \text{Heart} + \text{Heart}$

☐ True☐ False

$\text{Camel} + \text{Cow} < \text{Heart} + \text{Heart}$

☐ True☐ False

$\text{Camel} + \text{Cow} = \text{Heart} + \text{Heart}$

☐ True☐ False

$\text{Heart} + \text{Heart} + \text{Heart} > \text{Cow} + \text{Heart}$

☐ True☐ False

$\text{Heart} + \text{Camel} + \text{Cow} + \text{Sheep} = \text{Heart} + \text{Heart} + \text{Heart} + \text{Sheep}$

☐ True☐ False

$\text{Camel} + \text{Cow} + \text{Hat} + \text{Hat} + \text{Hat} = \text{Heart} + \text{Heart} + \text{Hat} + \text{Hat}$

☐ True☐ False

Did you find that three are true? If not, look again!

Hint: If you see the same pieces on both sides, you might need to remove both pieces.

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

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 subtraction sign, the given number will be the difference. The largest number will always be the box with the clue.

3- 4	3	3-	1-		3-
	5		2-		
1-		4-		2-	
1-		1-		2-	5-
1- 6	2-	2	5		
	5-		2-		3

Fill in the blanks. These equations are from the puzzle above.

$$\underline{\quad} - 3 = 2$$

$$6 - \underline{\quad} = 5$$

$$\underline{\quad} - 3 = 3$$

$$2 - \underline{\quad} = 1$$

$$6 - \underline{\quad} = 2$$

$$4 - \underline{\quad} = 2$$

$$\underline{\quad} - 2 = 3$$

$$6 - \underline{\quad} = 1$$

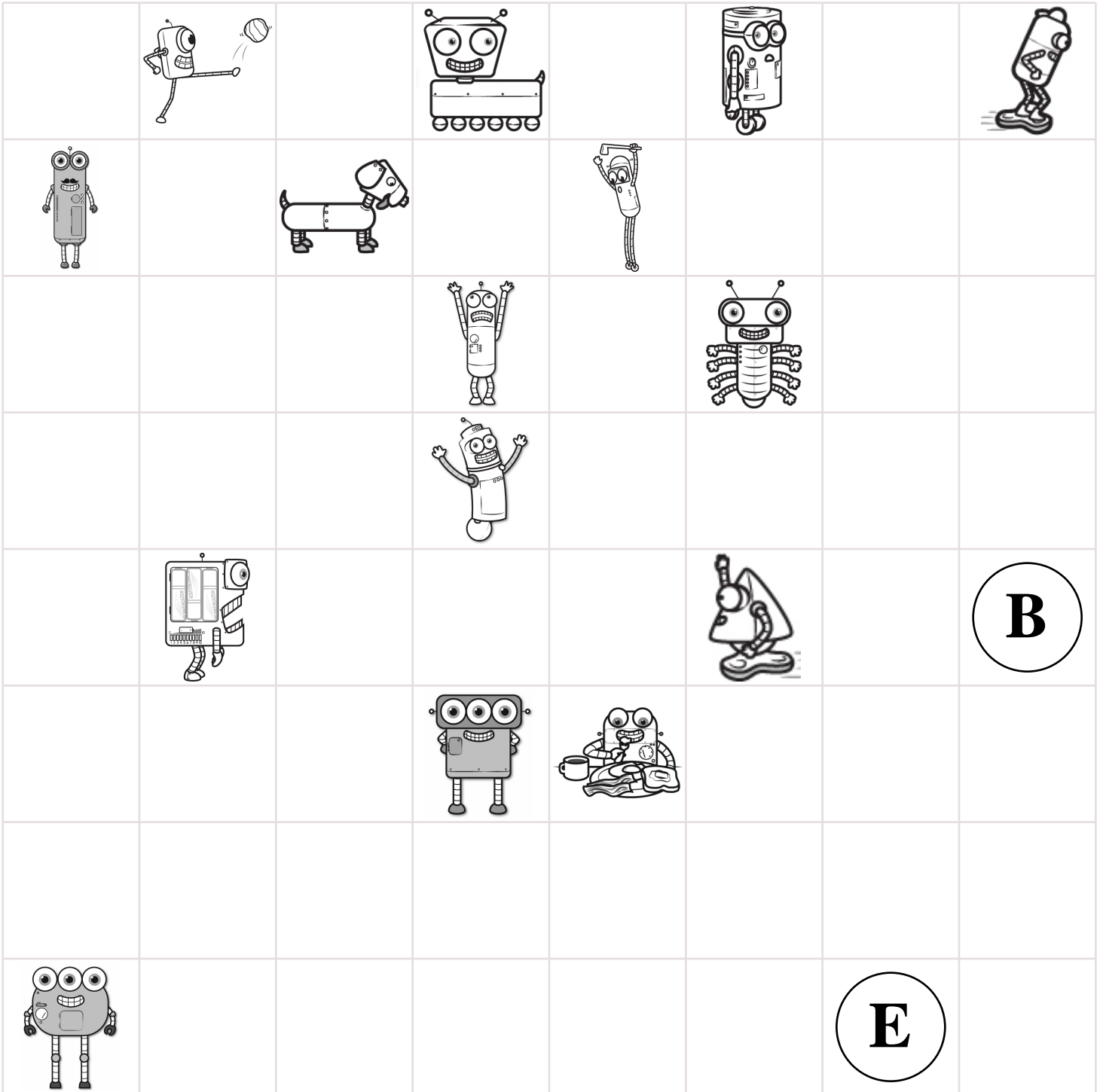
☐

I did page 27

☐I decided to skip this page  
edHelper

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

Pick up all of the robots from the game board. Start on the **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 **E** circle. You can go through a robot more than once.



Didn't get them all? That's ok. This was hard. I missed only \_\_\_\_\_ robot/robots.

☐

I did page 28

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

The 6th-grade classes are selling spring flowers for a fundraiser.

The sale will run the last week of school before spring break.

"Last year we sold 200 flowers," said Mr. Johnson. "I think this year we can do better. Let's set a goal to sell 250 flowers."

They can buy flowers from one of these florists:

Hannah's Florist will sell us a mix of flowers. They charge \$128 for 65 flowers. You can only buy in lots of 65.

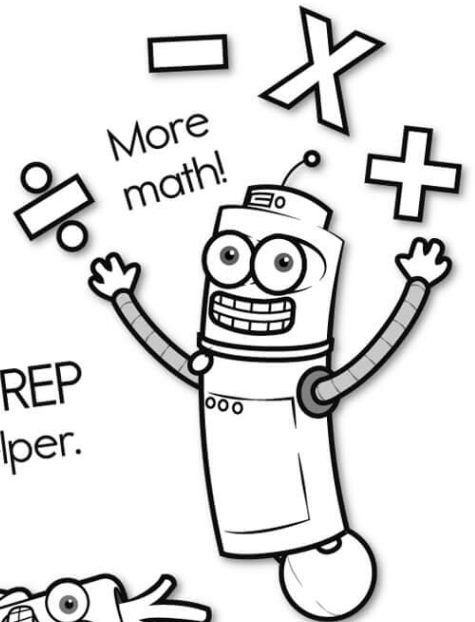
Michael's Flowers will also sell a mix of flowers. They charge \$40.80 for 20 flowers. They only sell in lots of 20.

Flowers & Bulbs will sell in lots of 100 flowers, for a total of \$180.

If you are in charge of buying the flowers, based solely on price, what would you buy?

Megan is not happy. She doesn't think price should be the only driver of what they buy.

What else should be considered to have a successful spring flowers fundraiser?

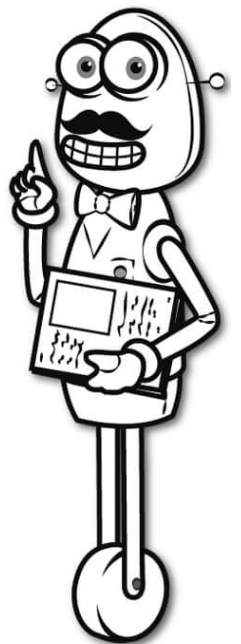


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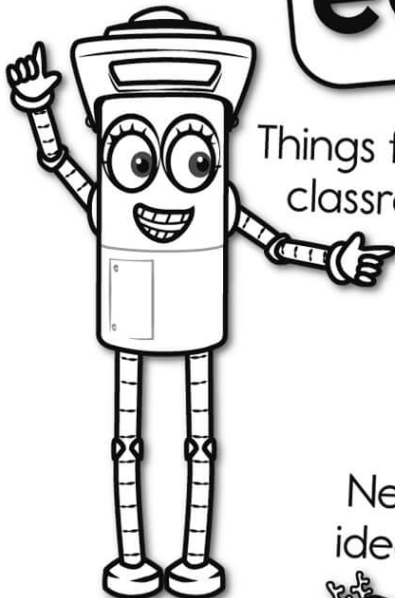
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history!



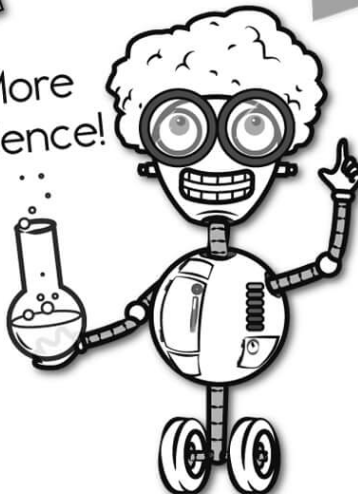
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