31	+51		-33		-23		+66		-57	
39										-11
+27										+17
-4										+19
-18										-9
+2										-6
+16										-35
										10
-69										+5
	+26		-1		+28		-8		+25	

Name: _____

Pick 26 to do: Skip 2 pages.

☐ page 1	☐ page 7	☐ page 13	☐ page 19	☐ page 25
☐ page 2	☐ page 8	☐ page 14	☐ page 20	☐ page 26
☐ page 3	☐ page 9	☐ page 15	☐ page 21	☐ page 27
☐ page 4	☐ page 10	☐ page 16	☐ page 22	☐ page 28
☐ page 5	☐ page 11	☐ page 17	☐ page 23	
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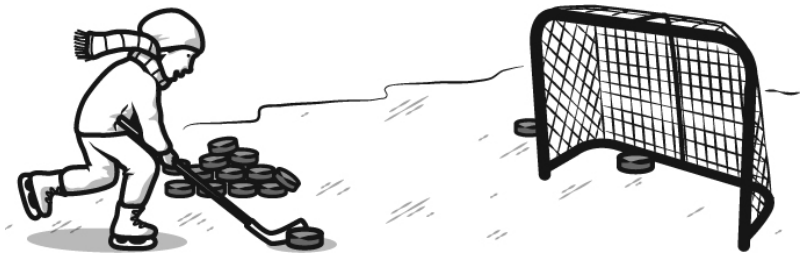
Challenge Math

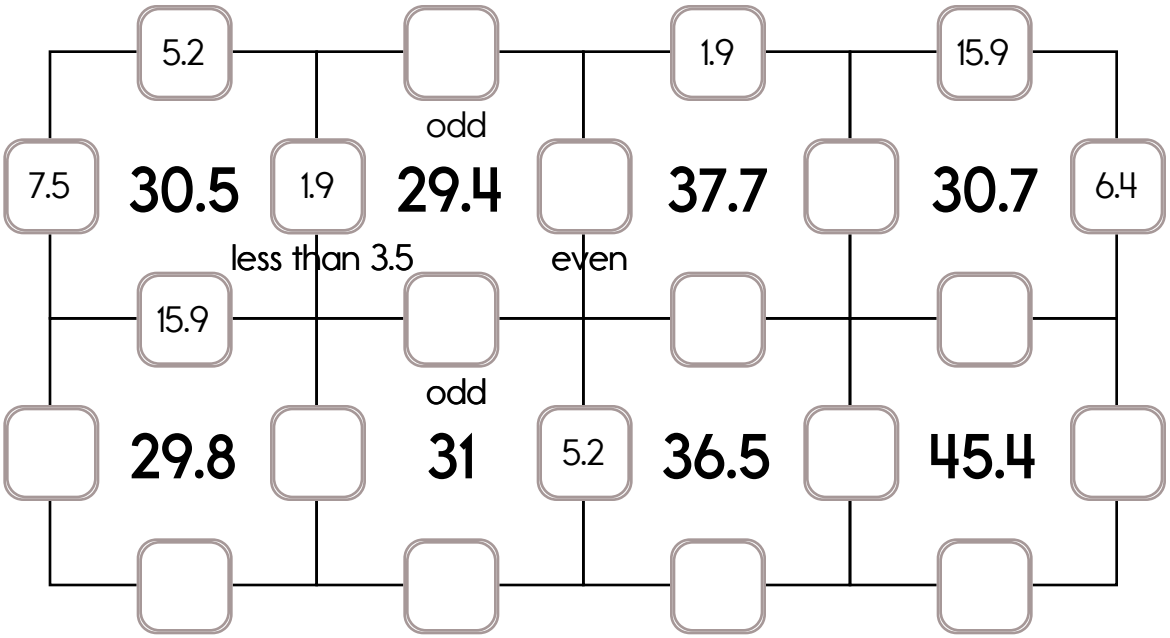
Book 25



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: 28.5, 15.9, or 18.4.

The other three numbers have to all be DIFFERENT and must be from these: 7.5, 0.9, 3.5, 1.9, 5.2, 8.5, or 6.4.



Name: _____

How many times greater is

72 than 6? _____

77 than 7? _____

890,000 than 8,900? _____

15 than 5? _____

870,000 than 870? _____

Two prime numbers are each greater than 1 and less than 21. When these two prime numbers are added together, they have a sum of 13.

What are the two prime numbers?

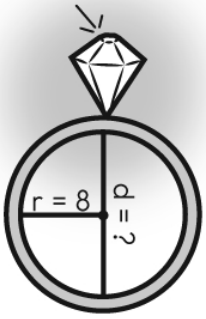
Name: _____

HELPFUL INFORMATION

RIGHT TRIANGLES - $a^2 + b^2 = c^2$

CIRCLES - $C = 2\pi r$

$\pi = 3.14$

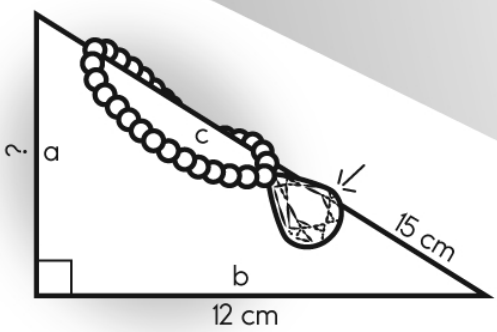


c = 50.24 mm

Circumference = **50.24 mm**

Radius = **8 mm**

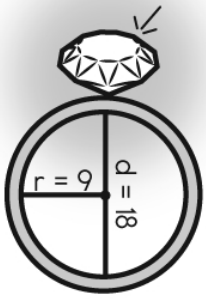
Diameter =



a =

b = **12 cm**

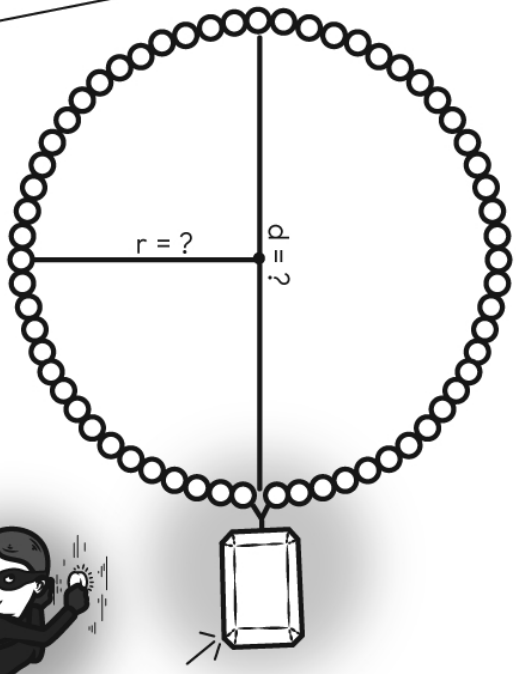
c = **15 cm**



Circumference =

Radius = **9 mm**

Diameter = **18 mm**



Circumference = **25.12 cm**

Radius =

Diameter =

Name: _____

Robert loves art. He doesn't like to draw or paint. He likes to tape stuff together, and he LOVES to use scissors.
"I am what's known as an artissor. It's a fine distinction that is much preferred over mere artists," Robert says to try to annoy Holly.
"That's not a thing! I'm telling," cries Holly.
Miss Keknew couldn't help herself. "Yes, that's not really a real thing."
"It is!" Robert said, as he cut and made 18 squares of paper. Each piece was so tiny. It had only 1 cm on each side.
"I will now make a rectangle by arranging these pieces of paper together, without overlapping. But not just any rectangle; this will be the biggest possible rectangle by perimeter that is possible using these 18 pieces of paper."
If Robert does what he says, what is the perimeter of the rectangle he makes?

By the way, if you showed a picture of it, that would be cool, too!

Name: _____

FUN BREAK!

Play a game online!

edHelper.com/math-games.htm

I PLAYED ONE GAME

☐ (Check the box after you play.)

MY SCORE

_____

Write as a percent.

$\frac{3}{4}$

Write the ratio as a fraction.
6 nickels to 5 dimes

Find 41% of 49.

$7 \div \frac{1}{3}$

20, 25, 30, 35, 40, _____,

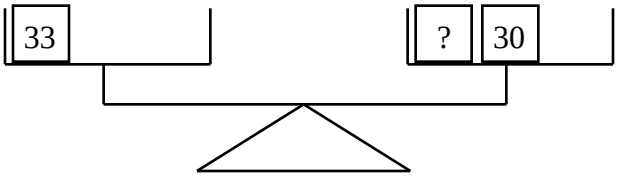
50, 55

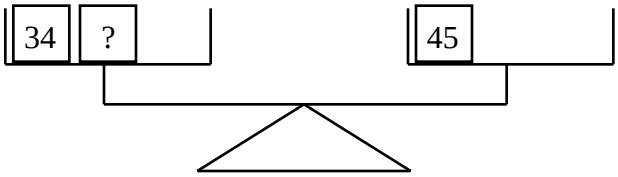
Yummy Donuts gave three dozen chocolate donuts and five dozen jelly donuts to the school. How many donuts did they give?

Write 1,490 in words.

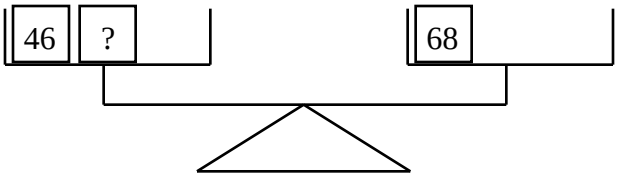
_____

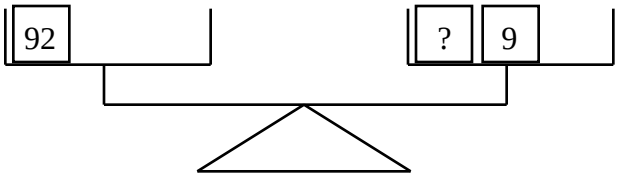
Name: _____



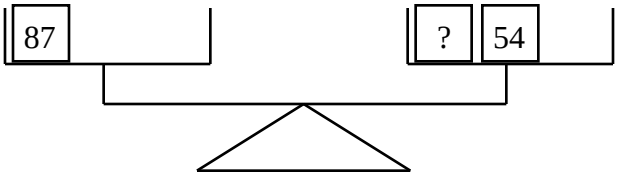


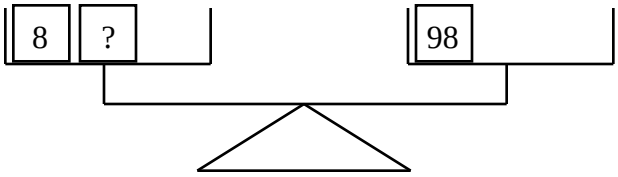
33 = 3 + 30 _____ _____ = _____



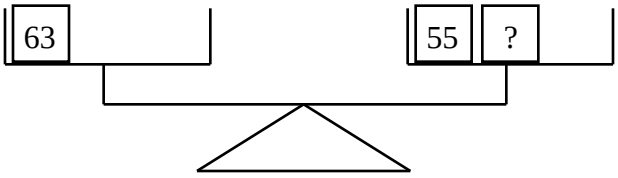


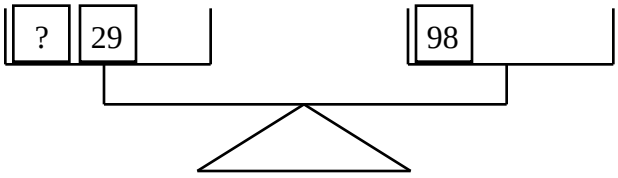
_____ = _____ _____ = _____





_____ _____





_____ _____

Name: _____

FUN BREAK!

Play a game online!

edHelper.com/math-games.htm

I PLAYED ONE GAME

☐ (Check the box after you play.)

MY SCORE

_____

What is 50% of 870?

B, _____, L, Q, V

18 ÷ 2 - 7

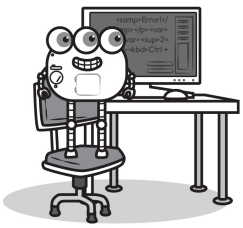
$\frac{1}{2}$, (1), _____, (4), (8), (16), (32), (64), (128)

How many centimeters in 430.5 meters?

A rectangle is 24 cm on one side and 6 cm on another side. What is the perimeter?

26 kg = _____ g

Name: _____



Robot was given a math problem to solve.

One hundred thirty people entered the sandcastle-building contest. Each person was given 12 gallons of sand for building. How many cups of sand were given to the contestants in all? (Note: There are 16 cups in one gallon.)

Robot wrote this program in Python to solve it.

```
number_of_people = 130
gallons_of_sand_per_person = 12
cups_in_one_gallon = 16

total_cups_of_sand = number_of_people * gallons_of_sand_per_person *
cups_in_one_gallon

print(total_cups_of_sand)
```

Robot's program will print the answer to the math problem.
What will the program print out? Fill in the blanks.

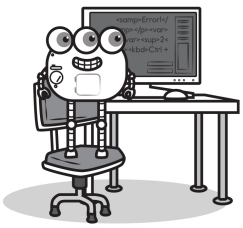
___ ___ ___ ___ ___

Hint and a Question

To multiply in Python * is used.
test_multiply = 7 * 14 # assign 98 to the variable test_multiply
print(test_multiply) # this would print test_multiply to the screen

Write a line of code to calculate the product of 6 times 15 and store it in the variable cookies_to_bake.

Name: _____



Robot wrote this program to solve a math problem.

```
# Define variables
pink_thneed_cost = 15
rosa_funds = 11.32

# Calculate how much more money Rosa needs
additional_funds_needed = pink_thneed_cost - rosa_funds

# Print the result
print("Rosa needs an additional: $" +
str(round(additional_funds_needed, 2)))
```

What will the program print out? Fill in the blanks.

Rosa needs an additional: $____ . ____ ____

Wait! Robot forgot to write down the math problem.
Can you write your own word problem to explain Robot's computer code?

Name: _____

Annabelle "Toothless" Dawson was a mean pirate who spent most of her time counting her gold coins.
She certainly didn't spend it!
Today was a boring day at sea, and no other ships were in sight. It took her 4 hours and 10 minutes to count all of her gold coins.
That included 15 minutes when she was not counting her gold. She thought she heard someone drop gold across the ship. She was wrong, but you wouldn't want to tell her that!
When she is counting, she counts exactly 80 coins in 10 minutes.
How many gold coins does she have?

Show your work.

Name: _____

Write your own math problem here.

Ask the person who helped you to try to solve your problem.

☐ I did page 11 ☐ I decided to skip this page

edHelper

Name: _____

Get a fidget spinner! Spin it. **I needed to spin _____ time(s) to finish.**

21 ÷ ___ = 7

How many tens are in the number 42,000?

How many total legs are on 15 zebras?

Sara has 36 books. She organized them equally into 4 boxes. How many books in each box?

You need to add what to 56 to get 64?

40 ÷ 8 =

7942, 2794, 4279,

_____, 7942, 2794,

4279, 9427, 7942, 2794,

4279, 9427, 7942, 2794

Circle the three numbers whose sum equals 38.

17	6	7	16
4	5	10	16
5	9	3	18

4 x __ = 24 = __ x 3

6 x 11 = __ = 3 x __

10 x __ = __ = 30 x 3

8 x __ = 96 = __ x 48

Is 19 a composite or a prime number?

How many total legs are on 10 chickens?

10 x 4 = __ = 8 x __

If you exchange 120 dimes for dollars, then how many dollars would you get?

Name: _____

$\frac{6}{100}$ =

10.6 | 0.6 | 0.006 | 0.06

Skill: Fractions and Mixed Numbers (addition/subtraction)

In 8,592, what does the digit 9 stand for?
It stands for 9 _____.

Skill: Whole Numbers and Place Value

What is the value of the 2 in 2,983,745?

Skill: Whole Numbers

$$\begin{array}{r} 21128 \\ -\ 6584 \\ \hline \end{array}$$

Skill: Whole Numbers and Place Value

$$\begin{array}{r} \square \\ 27 \\ \times\ \ 7 \\ \hline \end{array}$$

Skill: Multiplying and Dividing by 1-Digit

What is the value of the 3 in 69,431,258?

30,000 | 3 | 30,000,000 | 3,000

Skill: Whole Numbers

Express $\frac{26}{7}$ as a mixed number.

$3\frac{2}{7}$ | $2\frac{5}{7}$ | $3\frac{5}{7}$

Skill: Fractions

800,048 is _____.

an attribute | in standard form | the identity property

Skill: Whole Numbers and Place Value

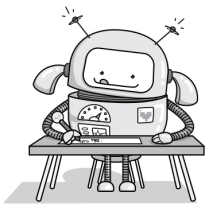
Name: _____

Secret Mission: You have been hired to develop and evaluate robots' math skills. Sometimes, they give thorough, correct explanations. However, they occasionally go haywire.

Robot Rita was given a math problem to solve.

Jacob was having so much fun making cupcakes for his class. He made $2\frac{1}{2}$ dozen of them! But there are only 20 kids in his class. Everyone ate one cupcake except for Emily, who does not like cupcakes. How many cupcakes are left over?

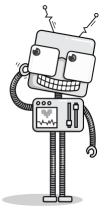
Robot Rita thinks this might be the answer:



He made 2.5 x 12 = (2.5 times 12=30) 30 cupcakes.
Emily didn't eat a cupcake so 20 - 1 = (20-1=19) 19 cupcakes were eaten.
Thus, Jacob has 30 - 19 = (30-19=11) 11 cupcakes left over. Answer: 11.

Robot Rita did not explain too much. How do you think Robot Rita could have shown her work better?

Name: _____



She is not sure that is correct, so she asked Robot Rob for help. This is how he tries to solve the problem.

A dozen equals to 12, so 2 1/2 dozens would be 2 times 12 + 6 = 30 cupcakes. When every student except Emily ate a cupcake, that means 20 - 1 = 19 cupcakes were eaten. So, if we subtract the number of cupcakes eaten from the total amount made, we find that 30 - 19 = 11 cupcakes are left over.

If you were the teacher, how would you grade Robot Rob's work? Explain and also make comments in Robot Rob's work.

Hint: EdHelper's answer pages gave this answer.

11 cupcakes

Name: _____

Remember how the robots gave solving that problem a try? Now it's your turn! Can you solve this cool math problem? Try to walk us through each step, and see if you can come up with an answer even better than the robots did! Is your answer the same as edHelper's?

Jacob was having so much fun making cupcakes for his class. He made $2\frac{1}{2}$ dozen of them! But there are only 20 kids in his class. Everyone ate one cupcake except for Emily, who does not like cupcakes. How many cupcakes are left over?

Name: _____

Now, it's your moment to shine! After observing the robots' attempts and fine-tuning their efforts, it's your turn to step up and give it a go!

Hunter was having so much fun making cupcakes for his class. He made $3\frac{2}{3}$ dozen of them! But there are only 19 kids in his class. Everyone ate one cupcake except for Hannah, who does not like cupcakes. How many cupcakes are left over?

Name: _____

Levi Strauss traveled from his home in Bavaria, a distance of approximately 4,014 miles, to join his brothers in New York City. Just a few years later, he traveled from New York City to San Francisco, California, approximately 2,501 miles. How much further was his trip from Bavaria to New York City than his trip from New York City to San Francisco?

Kayti sat down to read one of her books. She loved to read. Since Kayti was a mouse, her books were very small, only half inch high and one-seventh inch wide! Oh, but there were wonderful stories in them, no matter how small they were! Kayti read for 42 minutes, then she stopped to make tea. She read for another 48 minutes, and then stopped to have lunch. After lunch she read for 67 minutes and finished her book. How long did Kayti read in all? Express your answer in hours and minutes.

Mrs. Thompson has 50 books for her class. There are 13 students in the class. If she gives each student the same number of books, how many books will be left over?

Jacob is between a rock and a hard place. His car gets 23 miles to the gallon. He has about 4 gallons left in the tank. How much more gas does he need to drive the remaining 182 miles home?

Mr. Young said that only 4 out of 22 dogs are chosen to pull sleds in the Iditarod. If that were true, how many dogs out of 89 would be chosen?

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.

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

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

3 1 2 4

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

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

4 2 3 1

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

Hint - These numbers are missing:

2 1 3 3

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

Hint - These numbers are missing:

2 3 4 2

8 + 4 =		7 + 2 =		7 + 7 =	
6 + 2 =		4 + 3 =		7 + 6 =	

Name: _____

Fill in the missing numbers.

	3		1
	1	4	
4	3		1

Hint - These numbers are missing:

2 2 2 4 3

			4
3	4	1	2
1	2		

Hint - These numbers are missing:

3 2 3 1 4

1		2		1
	3	1		2
1	4	2		

Hint - These numbers are missing:

1 3 4 3 2 4

	2		2	
3			4	3
2	1		1	2

Hint - These numbers are missing:

2 1 1 3 4 1

23 - ___ = 13

$$\begin{array}{r} 12 \\ -\ \square 2 \\ \hline \end{array}$$

Circle the third number.

R, 4, B, Z, 7, 4, 5, 8, 9, X, F, D, 8, 4, A, Z, A, 6, 2

Name: _____

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

seven tenths	●	●	six and eighty-one hundredths
$2\frac{65}{100}$	●	●	$\frac{7}{10}$
nine and eighty-one hundredths	●	●	$8\frac{30}{100}$
$7\frac{7}{10}$	●	●	$9\frac{81}{100}$
eight and thirty hundredths	●	●	two and sixty-five hundredths
$6\frac{81}{100}$	●	●	$\frac{36}{100}$
thirty-six hundredths	●	●	seven and seven tenths

Which number has exactly 8 ten thousands?

Round 1735 to the nearest hundred.

What is the sum of 10 and 239?

Jacob bought 5 dozen cupcakes for a party. How many cupcakes did he buy?

33 is a multiple

of 11 and 3.

20 is a multiple

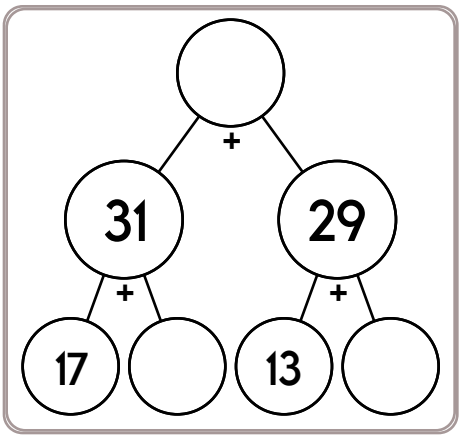
of ___ and ___.

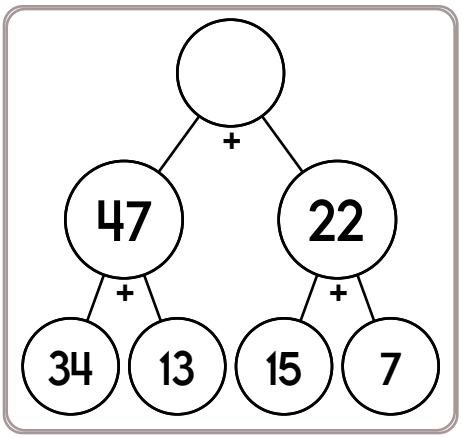
21 is a multiple

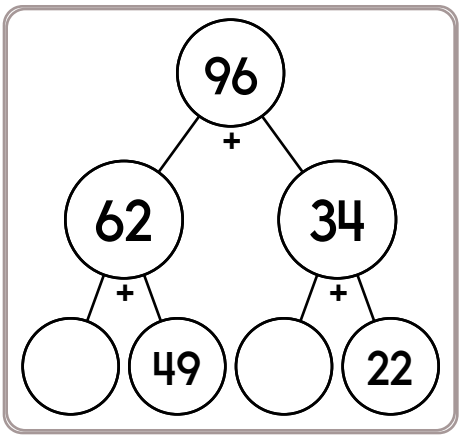
of ___ and ___.

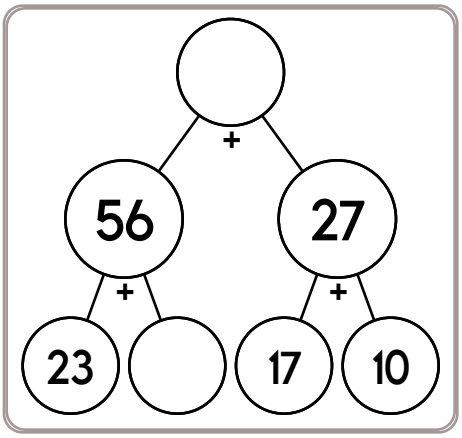
triple 70 =

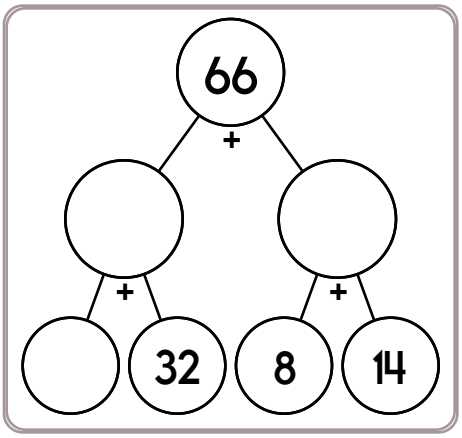
Name: _____

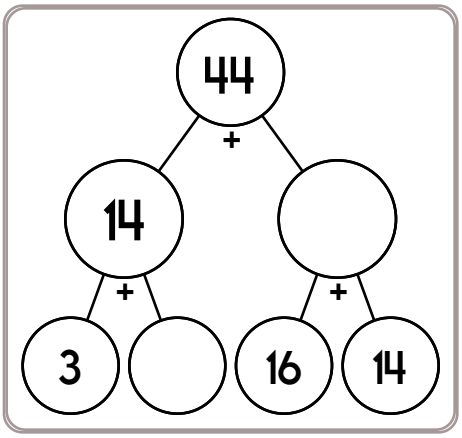


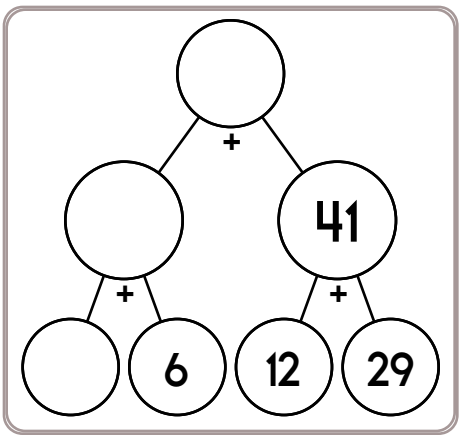


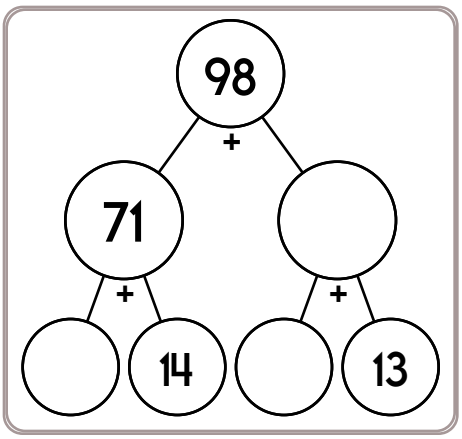


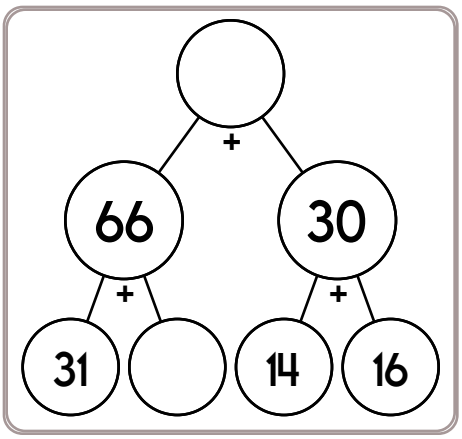


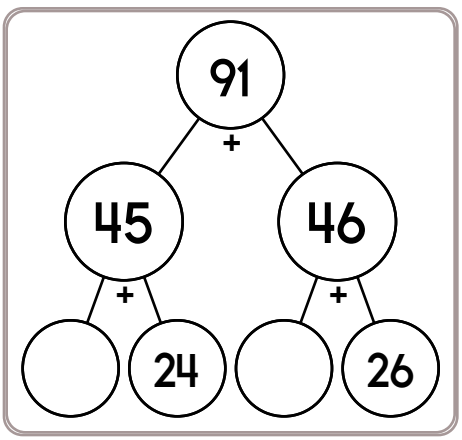


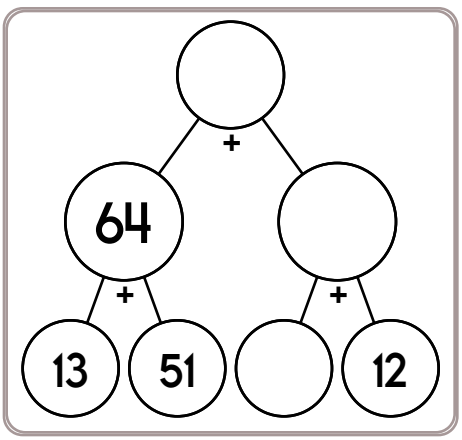


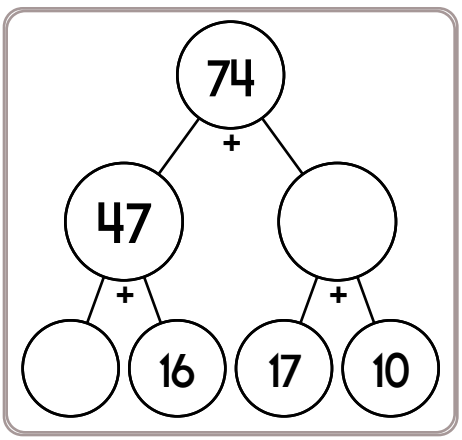








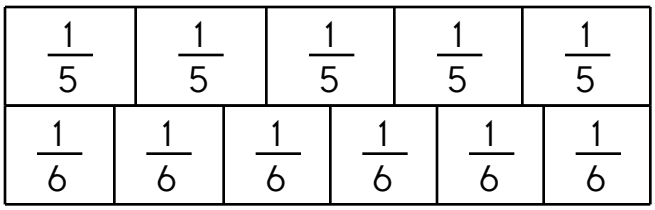




word root **vour** can mean **eat** **devour**

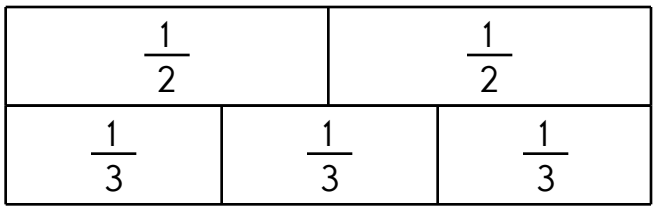
Name: _____

Color each fraction. Compare.



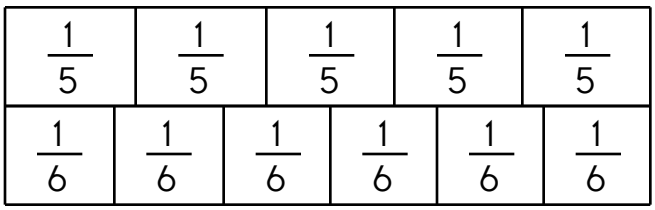
$\frac{2}{5}$ ◯ $\frac{3}{6}$

Color each fraction. Compare.



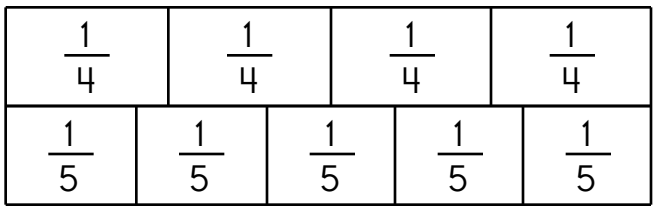
$\frac{1}{2}$ ◯ $\frac{2}{3}$

Color each fraction. Compare.



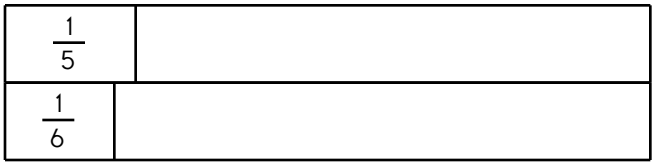
$\frac{2}{5}$ ◯ $\frac{4}{6}$

Color each fraction. Compare.



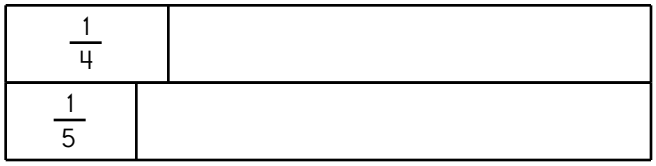
$\frac{1}{4}$ ◯ $\frac{1}{5}$

Now draw the fraction boxes and then color each fraction to compare.



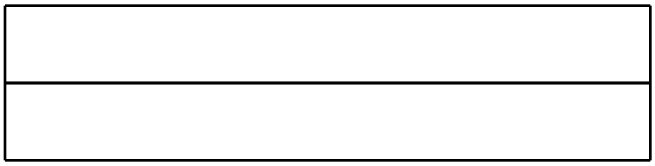
$\frac{4}{5}$ ◯ $\frac{5}{6}$

Now draw the fraction boxes and then color each fraction to compare.



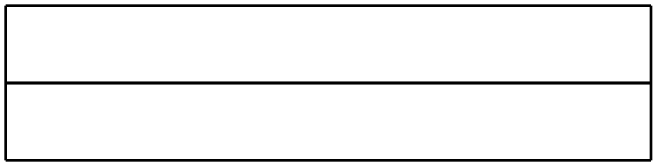
$\frac{3}{4}$ ◯ $\frac{3}{5}$

Now draw the fraction boxes and then color each fraction to compare.



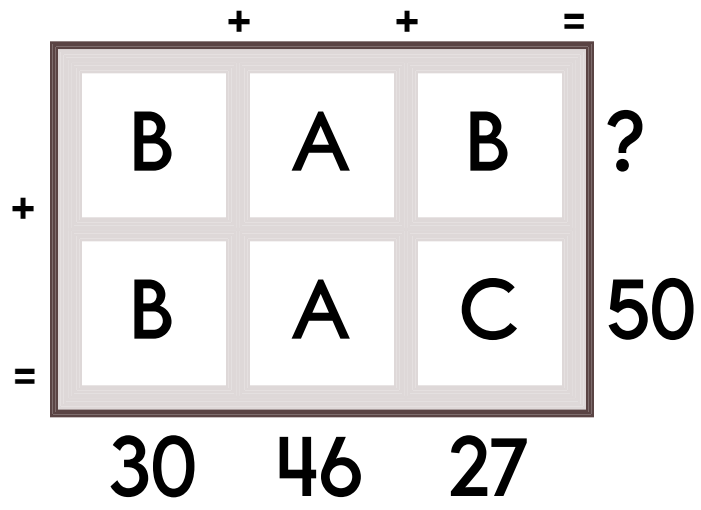
$\frac{1}{5}$ ◯ $\frac{4}{6}$

Now draw the fraction boxes and then color each fraction to compare.



$\frac{2}{5}$ ◯ $\frac{4}{6}$

Name: _____



Equations and Hints:

Each letter is a whole number.

Fill in the equations using the chart:

B + A + C = 50 B + C = __ __ + __ = 30

__ + __ = 46

Additional hints:

C < 15 B = C + 3

Show Work:

Solve:

? = __

Name: _____

Safety pins are put in packages of 15 pins each. How many packages will 240 pins fill?

Gavin picked up all the pennies he saw on the ground on his way to school. At the end of 50 days he had picked up 109 pennies. What is the average number of pennies he picked up each day? Round off your answer to the nearest whole penny.

Which two of the fractions have a difference of $\frac{1}{4}$?

$\frac{1}{11}$ $\frac{5}{7}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{7}{8}$

126, 144, 162, 180,

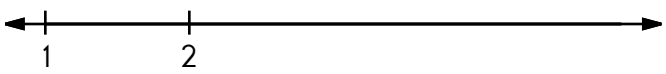
_____, 216, 234, 252,

270

Amanda has 23 nickels. How much money is that?

What number is halfway between 28 and 36?

Name: _____



a. Show where 5 should go.

b. Show where $3\frac{1}{2}$ should go.

c. Show where $2\frac{2}{3}$ should go.

Ava and Erin are playing a new giveaway game. The game is in the shape of a circle. A light goes around the circle. When a player presses the button, the light stops. Players can win 1 ticket, 2 tickets, 3 tickets, 4 tickets, or 5 tickets, depending on where the light stops. Ava played one round, and then Erin played a round. What is the probability that they both won more than 2 tickets?

The students chosen for the class play were posted. All of the students in the play are in Mrs. Jackson's class and were born in months with exactly 30 days. For each student, write whether they are in the play, might be in the play, or are not in the play.

Sara is in Mrs. Jackson's class and was born on July 18.

Connor is in Mr. Williams' class and was born on November 19.

Eric is in Mrs. Allen's class and was born on June 16.

Anna is in Mrs. Jackson's class and was born on March 8.

David is in Mrs. Jackson's class and was born on January 28.

Hannah wrote the number 1 on a card and put it in a hat. Then, she wrote the number 9 on a card and put it in the same hat. Hannah then randomly took out the cards from the hat to make a number. What is the probability that her two-digit number is less than 92?

Name: _____

Cross off the letter that does NOT belong.

C, A, E, I, M, Q, U, Y

Why does _____ not belong in the pattern?

Cross off the number that does NOT belong.

(9,765,625), (1,953,125), (390,625), (78,125),

(15,625), (3,125), (1,061), (625),

(125), (25), (5)

Why does _____ not belong in the pattern?

Name: _____

Make change. You can use $20, $10, $5, $1, 25¢, 10¢, 5¢, or 1¢.

Make $57.32 any way you want!

Make $26.44 any way you want!

Make $53.48 any way you want!

Make $52.34 any way you want!

word root **viv** can mean **life** **vivacious, vivid**

Name: _____

My mother's recipe for fruitcake calls for $\frac{1}{3}$ cup of chopped walnuts. She is making 6 fruitcakes. How many cups of walnuts will she need?	Rose wants to be a dancer. Her teacher says that she has potential. Rose practices 16 $\frac{1}{2}$ hours every week. The first six days of this week, she practiced 13 $\frac{5}{6}$ hours. How long did she practice on the seventh day?	Anne went for a walk with her father. They started walking at 5:35 a.m. They walked for 53 minutes. What time was their walk over?
There are 36 students in Alex's class. Most of them like cheesecake, but $\frac{1}{3}$ of them don't like it at all! How many students don't like cheesecake?	Connor bought 10 sea monkeys for $10.53. To the nearest dollar, how much did his purchase cost?	There are 7,843 eggs to be packed into cartons. What number is in the hundreds place?

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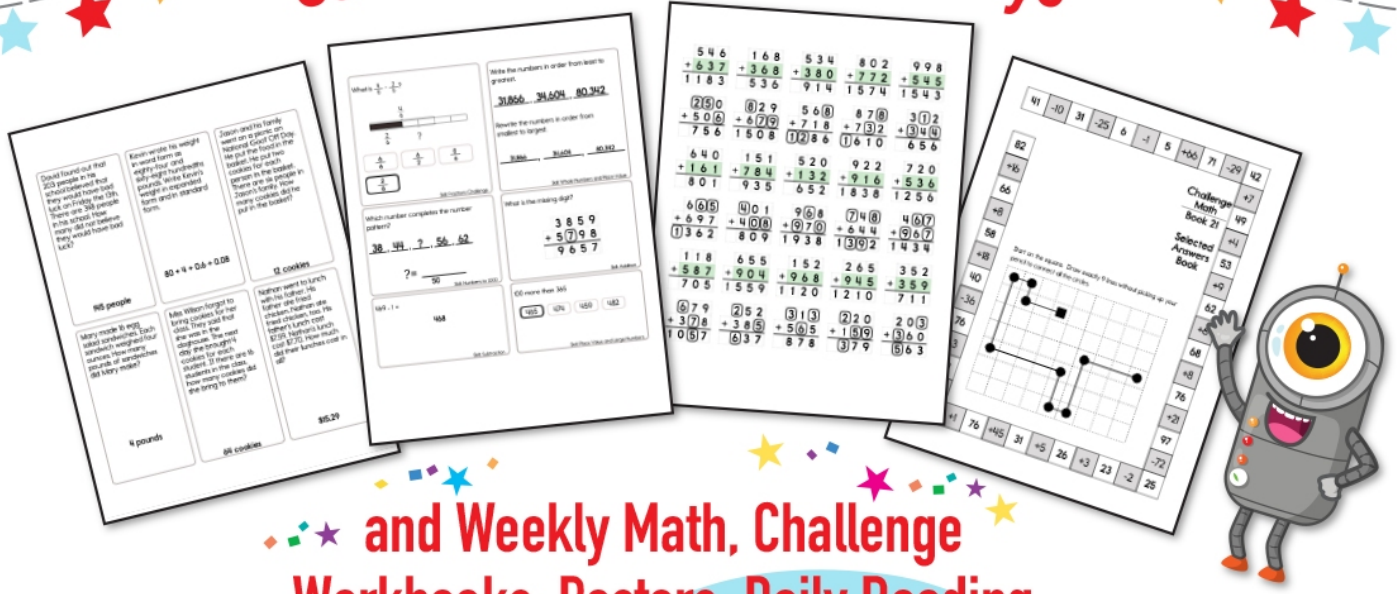

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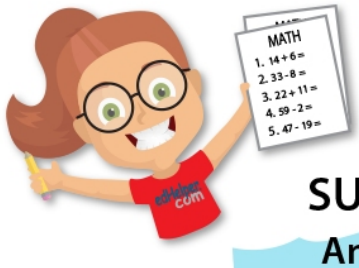

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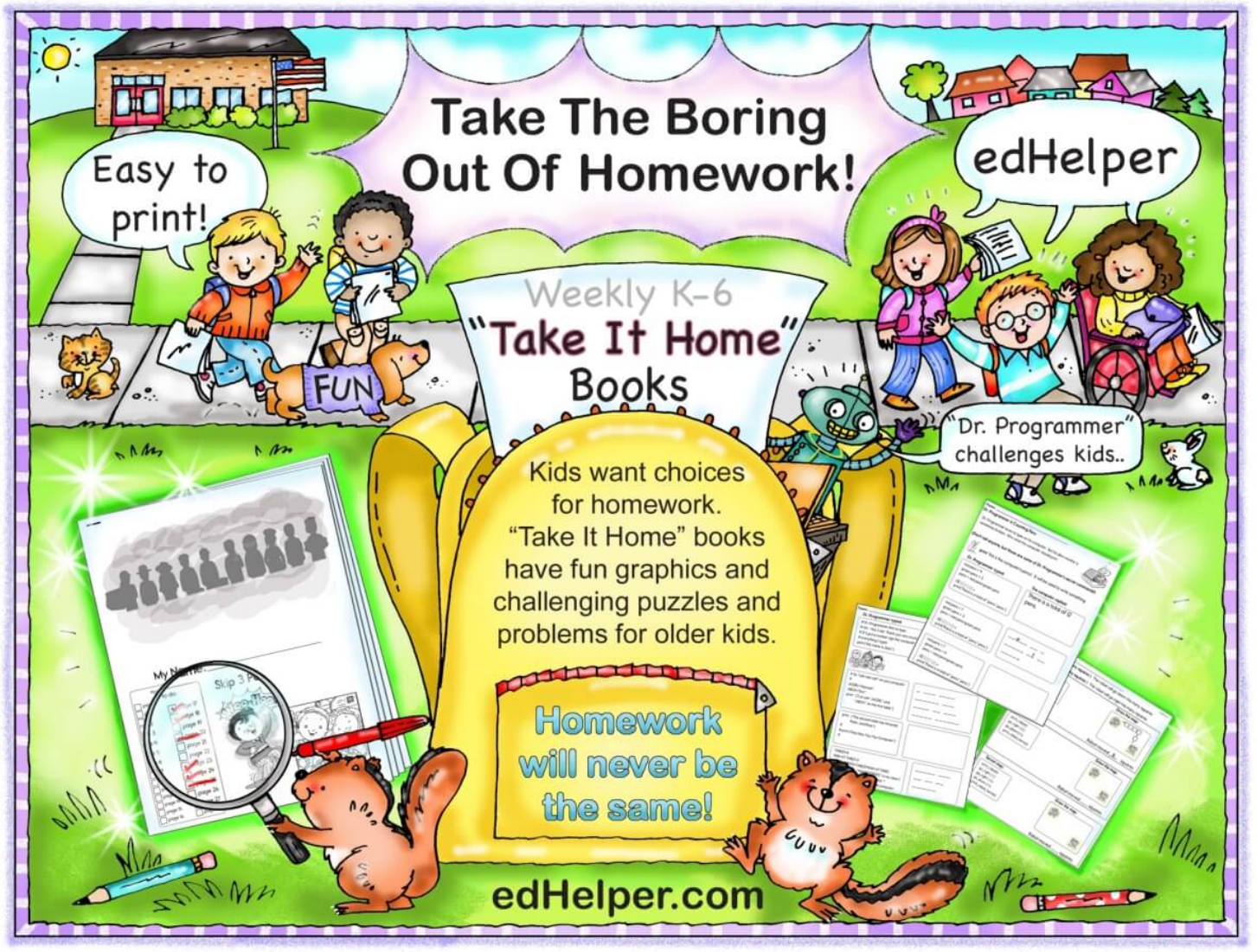
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