33.8	+9		+29		-27.6		-8.4		-2.9	

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
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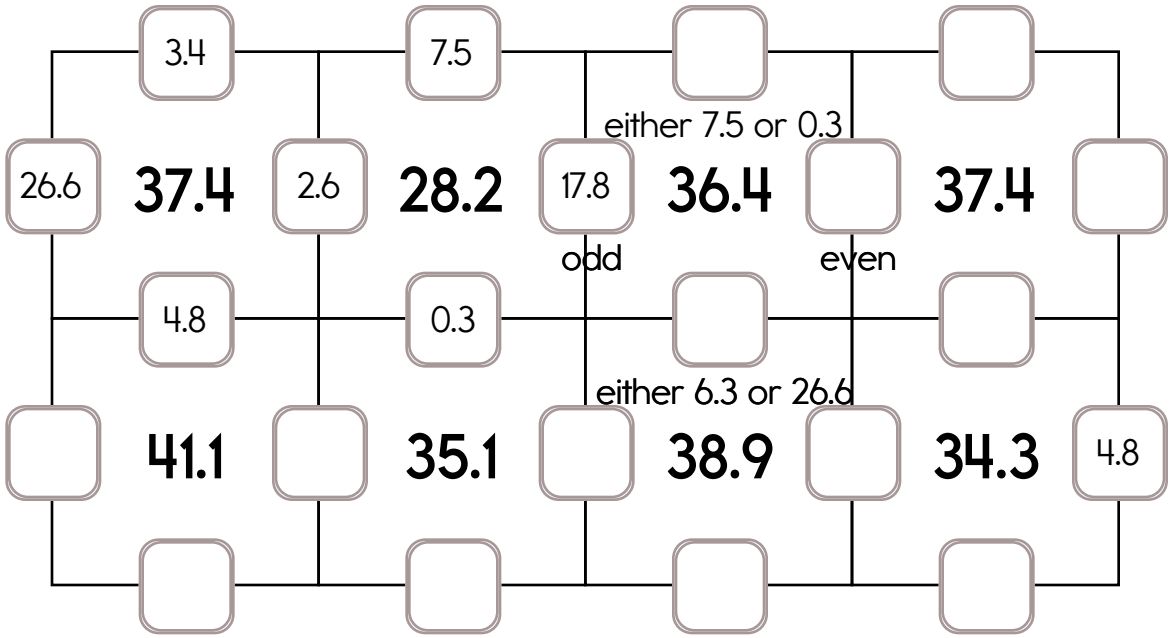
Challenge Math

Book 33

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: 28.9, 26.6, or 17.8.

The other three numbers have to all be DIFFERENT and must be from these: 4.8, 6.3, 0.3, 3.4, 7.5, or 2.6.



37.1									-4.7
-37									+24.1
-13.9									-9
-5.7									-19.5
+3.6									+67
+78.1									+1.2
									92
-11									-32.3
	-12		-73.5		+52.8		-38		+34	

☐ I did page 1 ☐ I decided to skip this page

edHelper

Name: _____

Puzzle:

6				2,646
		6		2,430
			6	2,430
	6			1,470
3,402	1,050	2,646	2,430	X

Work Area:

6				2,646
		6		2,430
			6	2,430
	6			1,470
3,402	1,050	2,646	2,430	X

The product for each column and row is given. Blanks use numbers 2 to 9 only.

 = _____  = _____  = _____

Puzzle:

				2,205
				84
				686
				675
490	1,225	108	1,323	X

Work Area:

				2,205
				84
				686
				675
490	1,225	108	1,323	X

The product for each column and row is given. Blanks use numbers 2 to 9 only.

 = _____  = _____  = _____

 = _____  = _____

Name: _____

69 x 100 =	84 x 100 =	65 x 10 =
79 x 1,000 =	36 x 10 =	84 x 100 =
98 x 100 =	87 x 1,000 =	98 x 1,000 =
52 x 10 =	34 x 1,000 =	93 x 1,000 =
98 x _____ = 9,800	_____ x 100 = 5,400	66 x _____ = 660
_____ x 1,000 = 78,000	66 x _____ = 660	_____ x 100 = 8,400
_____ x 100 = 7,100	87 x _____ = 87,000	35 x _____ = 3,500
78 x _____ = 7,800	_____ x 1,000 = 79,000	_____ x 1,000 = 41,000
_____ x 10 = 440	71 x _____ = 710	66 x _____ = 6,600

Name: _____

Ready to make equations? There is a missing equation in each box.
Circle the numbers once you find it!

A

	(5)	88	67
+	75	37	85
	12	90	36

Find an addition fact.

B

	68	(40)	71
+	97	46	53
	83	10	6

Find an addition fact.

C

	78	81	(82)
+	90	37	13
	45	18	16

Find an addition fact.

Equations:

Write the equation facts you found.

A	5	+		=	
B	40	+		=	
C		+		=	82

$$\begin{array}{r} 476 \\ -\ 273 \\ \hline \end{array}$$

Can 376 be evenly divided by 8? Circle:
376 is NOT evenly divisible by 8
376 is evenly divisible by 8

44 ÷ 4 =

$$\begin{array}{r} 353 \\ +\ 272 \\ \hline \end{array}$$

Add the correct end punctuation for this sentence.
Don't put that mushroom in your mouth

1 cm = 10 mm

20 cm = _____ mm

Name: _____

FUN BREAK!

Play a game online!

edHelper.com/math-games.htm

I PLAYED ONE GAME

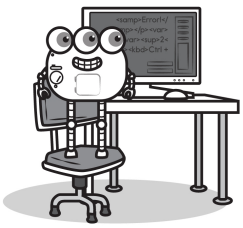
☐ (Check the box after you play.)

MY SCORE

_____

-7 - 5 =	-35 ÷ -7 =	-6 + 5 =
37 + n = 53 What is the value of n?	Round 85,738 to the nearest hundred.	What 4 coins add up to 12 cents?

Name: _____



Robot was given a math problem to solve.

It was Harry Potter's birthday. He was 14 years old. It was so much fun having a party at Hogwart's with his friends! If he had come to Hogwart's when he was 13 years and four months old, how long had he been there?

Robot wrote this program in Python to solve it.

```
# Harry's current age in years
current_age_years = 14

# Convert Harry's current age to months
current_age_months = current_age_years * 12

# Harry's age in years and months when he came to Hogwart's
arrival_age_years = 13
arrival_age_months = 4

# Convert Harry's arrival age to months
arrival_age_total_months = arrival_age_years * 12 + arrival_age_months

# Calculate how long Harry has been at Hogwart's
hogwarts_duration = current_age_months - arrival_age_total_months

# Print the duration
print("Harry has been at Hogwart's for", hogwarts_duration, "months.")
```

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

Harry has been at Hogwart's for ____ months.

Quick Hints

For * you multiply the two numbers.

Name: _____

Jimmy has played 14 baseball games so far this season. He's had 50 at-bats. Of those 50 at-bats, he has had 4 walks, 8 strikeouts, 12 singles, and 3 doubles.
That doesn't add up to 50 because he often pops up or grounds out. A couple of times he has even fouled out.
Today Jimmy is playing Billy's team.
"We're going to win," Billy says to Jimmy.
"Good luck with that! I'm going to go 4 for 4 and hit for the cycle," Jimmy says back.
Jimmy is probably going to have four chances at bat. Based on what he's done in the past 14 baseball games, what do you think he'll do today?

There is no one answer. Explain your reasoning and be sure to try to back it up!

Name: _____

Simplify each fraction. Draw lines between equal fractions.

$\frac{45}{108}$	●	●	$\frac{35}{50}$
$\frac{1}{3}$	●	●	$\frac{5}{12}$
$\frac{49}{70}$	●	●	$\frac{5}{6}$
$\frac{35}{42}$	●	●	$\frac{4}{12}$

Write as a decimal.
Eleven and four tenths

Write as a decimal.

$9\ \frac{57}{100}$

Write as a decimal.

$5\ \frac{1}{10}$

What is the sum of 50 and 409?

How many total legs are on 5 zebras and 3 owls?

triple 90 =

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

Hannah bought six candy bars. It cost $3.96. How much did each candy bar cost?

Round 107 to the nearest ten.

Circle the greatest number:

175,938,152,093 74,864
6,439,025,871 2,604

7 kg = _____ g

Name: _____

At the science fair, Maria and Alex put together their own remote control vehicles. Mrs. Garcia is walking around in the back of the school to check them out.

"My model truck can go 12.8 mph, and its battery can last 33 minutes," says Maria.

"Well, my car can go 13.5 mph," interrupts Alex. "And it can last 28 minutes."

Mrs. Garcia decides to put them both on a track to test. She runs them both for 38 minutes without any additional charges. Which car will go farther? By how many miles?

Alex was having so much fun making cupcakes for his class. He made $2\frac{5}{6}$ 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: _____

FUN BREAK!

Play a game online!

edHelper.com/math-games.htm

I PLAYED ONE GAME

☐ (Check the box after you play.)

MY SCORE

_____

11 x 10 x 9	A toy car can go 4 mph. How long would it take to go 10 miles?	84 divided by 12 equals
Circle the three numbers whose product equals 792. 12 3 4 22 22 13 16 22 23	C, F, I, L, _____, R, U, X	45, 54, 63, _____, 81, 90, 99

Name: _____

+	31			89	
	91 ___ + 31	___ + ___	157 ___ + ___	149 ___ + 89	___ + ___
	52 ___ + 31	___ + ___	___ + ___	110 ___ + 89	85 ___ + ___
91	91 + 31	117 91 + ___	91 + ___	91 + 89	155 91 + ___
	___ + 31	66 ___ + ___	137 ___ + ___	___ + 89	___ + ___
45	45 + 31	45 + ___	45 + ___	45 + 89	109 45 + ___

Which is the largest?

82.4 ÷ 7.4 82.4 ÷ 7.5 82.4 ÷ 7.6

$$\begin{array}{r} 42 \\ +\ 38 \\ \hline \end{array}$$

$$\begin{array}{r} 64 \\ -\ 28 \\ \hline \end{array}$$

Circle the digit in the tenths place.

43.487

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

_____

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

Name: _____

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

In the parking lot there are 12 vehicles. There are 4 SUVs. What fraction of the vehicles are not SUVs?	Name the shape with four sides and four angles.	There are 2 groups of 3 rocks. How many rocks?
D, K, D, K, D, K, D, _____, D, K, D, K	Sara bought a stuffed animal at the school store. She paid with a $20 bill. She was given back 8 dimes and 5 quarters for change. How much was the stuffed animal?	12, 18, 24, 30, 36, 42, _____, 54, 60
What is 50% of 884?	How many minutes is it from 6:00 a.m. to 11:55 a.m.?	The perimeter of a rectangle is 16 cm. The longer side is 6 cm. How long is the shorter side?
$3\frac{5}{6} + 6\frac{5}{6}$	Draw a number line with 0, $\frac{1}{2}$, and 1. Show where $\frac{5}{7}$ would go. Is $\frac{5}{7}$ closer to 0, $\frac{1}{2}$, or 1?	What 6 coins add up to 56 cents?

☐ I did page 12 ☐ I decided to skip this page

edHelper

Name: _____

Spin again. **I needed to spin _____ time(s) to finish.**

triple 20 =	At 1 p.m. today, Jessica will not be able to use her electronics for 4 hours. At what time will she be able to resume using her phone?	108 ÷ 9 =
Is 33 a composite or a prime number?	28 ÷ 7 x 9	32, 39, 46, 53, 60, _____, 74, 81
It was 2 degrees below zero in the morning. By afternoon the temperature rose 25 degrees. How warm was it?	How much money is 1 quarter, 8 dimes, 1 nickel, and 1 penny?	It was 6 degrees above zero in the morning. By afternoon the temperature rose 28 degrees. How warm was it?
Rosa has 6 cookies. She and her 2 friends shared them equally. How many cookies did Rosa keep?	How many minutes is it from 6:00 a.m. to 11:20 a.m.?	Draw a number line with 0, $\frac{1}{2}$, and 1. Show where $\frac{7}{10}$ would go. Is $\frac{7}{10}$ closer to 0, $\frac{1}{2}$, or 1?

Name: _____

Which of these is six thousand more than 218,313?

278,313 | 218,913 | 224,313 | 218,373

Skill: Whole Numbers

3 and 5 are _____ numbers.

prime | irrational | encrypted | composite

Skill: Estimation and Number Theory

The order of operations can be remembered by the acronym

ABACAS | ASDEM | PEMDAS | PANDA

Skill: Order of Operations

Circle the prime numbers.

There may be multiple answers.

11 | 15 | 2

Skill: Basics of Fractions and Mixed Numbers

$$\begin{array}{r} 13214 \\ -\ 4278 \\ \hline \end{array}$$

Skill: Whole Numbers and Place Value

What is 16 ÷ 7 expressed as a mixed number?

Skill: Fractions and Mixed Numbers (addition/subtraction)

Rose is playing a game. She completed 4 levels. She earned 20 stars in each level. How many stars does she have altogether?

1,200 | 80 | 24 | 8

Skill: Multiplying and Dividing by 1-Digit

Hunter saved $5.25. He found 2 dimes. How much does he have now?

$5.35 | $5.45 | $5.55

Skill: Adding and Subtracting Decimals

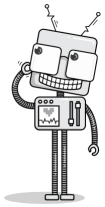
Name: _____

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 Rob was given a math problem to solve.

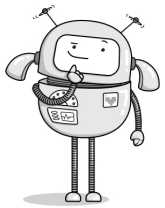
In a game, Pam and Mary each have their own territory and currency. When you visit Pam, you will use whatters. On the other hand, if you visit Mary, you will use clingdones. The value of one whatter is equal to 4.4 clingdones. Mary wants to visit Pam. She has 22 clingdones, so she exchanges half of her clingdones for whatters. The exchange place rounds to the nearest tenth on exchanges. How much in whatters and clingdones does Mary currently have?

Robot Rob thinks this might be the answer:



Each whatter costs 4.4 clingdones and she exchanges half her clingdones, so that's 22 clingdones / 2 = (22/2=11) 11 clingdones.
11 clingdones / 4.4 clingdones/whaters = (11/4.4=2.5) 2.5 whatters
They round to the nearest tenth, so she has 2.5 whatters = (2.5=2.5) 2.5 whatters
She exchanged half her clingdones, so she has 22 clingdones - 11 clingdones = (22-11=11) 11 clingdones
She has 2.5 whatters and 11 clingdones. Answer: 2.5, 11.

Name: _____



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

First, let's determine the amount of clingdones Mary is planning to exchange. Half of 22 clingdones is 11 clingdones.

Now we'll find out how many whatters 11 clingdones can be converted into. We know that one whatter is equivalent to 4.4 clingdones, so we'll divide 11 by 4.4. This gives us approximately 2.5 whatters. But since the exchange place rounds to the nearest tenth, this is rounded to 2.5 whatters.

So after the exchange, Mary has 2.5 whatters and 11 clingdones left (since she only exchanged half of her original 22 clingdoes).

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

Hint: EdHelper's answer pages gave this answer.

Mary now has 2.5 whatters and 11 clingdones.

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?

In a game, Pam and Mary each have their own territory and currency. When you visit Pam, you will use whatters. On the other hand, if you visit Mary, you will use clingdones. The value of one whatter is equal to 4.4 clingdones. Mary wants to visit Pam. She has 22 clingdones, so she exchanges half of her clingdones for whatters. The exchange place rounds to the nearest tenth on exchanges. How much in whatters and clingdones does Mary currently have?

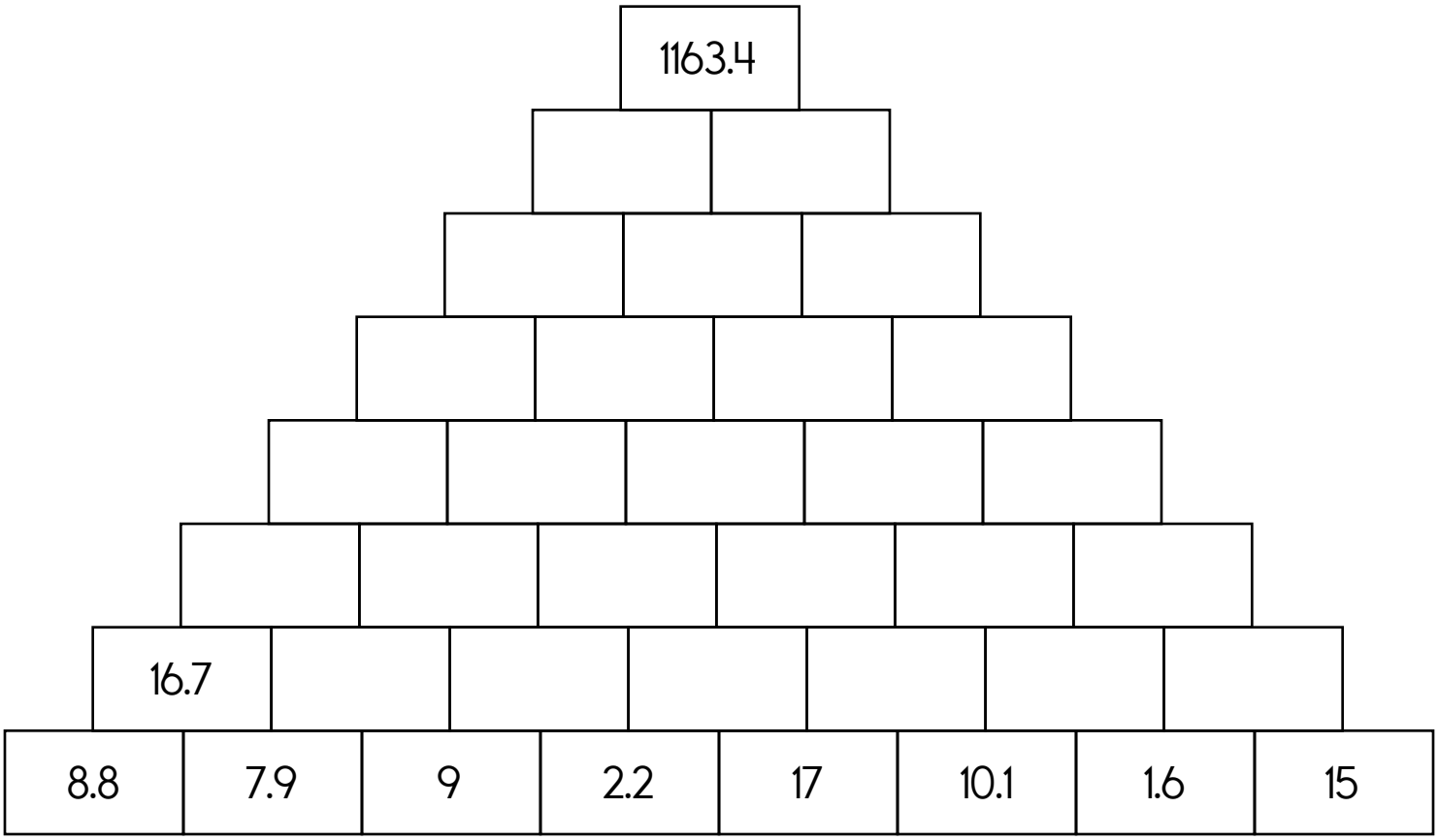
Name: _____

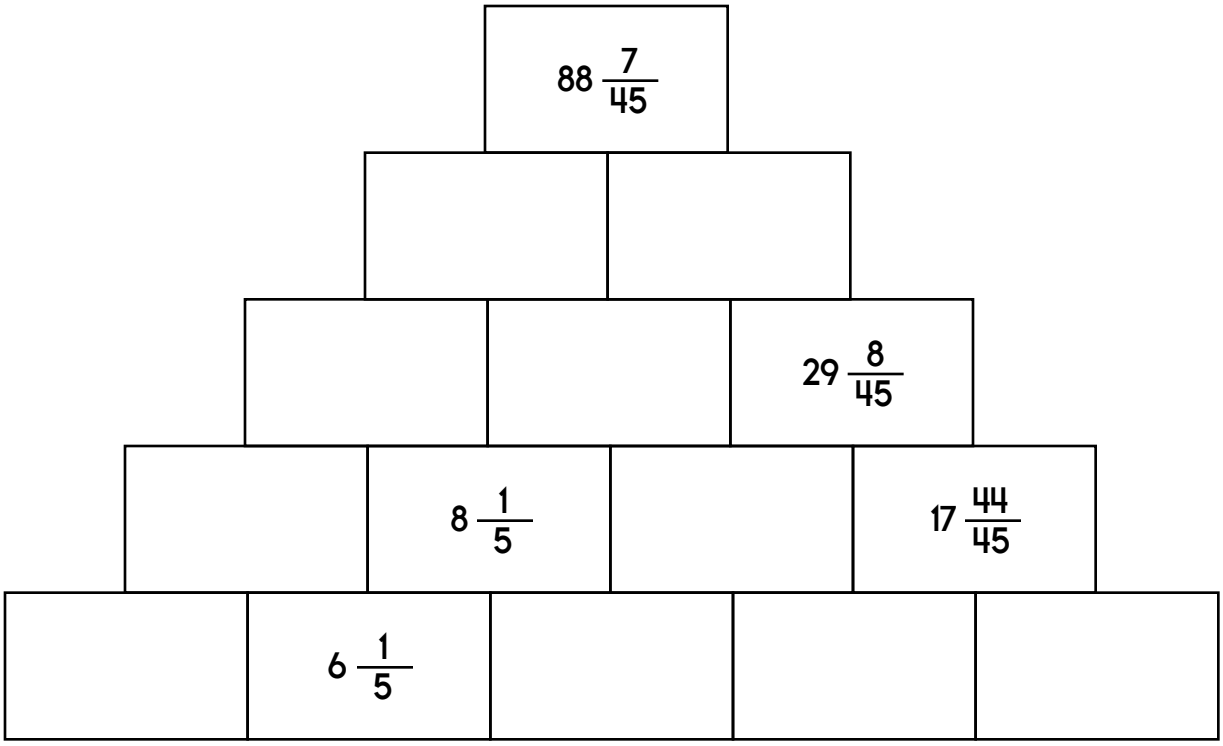
Now, it's your moment to shine! After observing the robots' attempts and fine-tuning their efforts, it's your turn to step up and give it a go!

In a game, Ava and Hannah each have their own territory and currency. When you visit Ava, you will use whatters. On the other hand, if you visit Hannah, you will use clingdones. The value of one whatter is equal to 7.3 clingdones. Hannah wants to visit Ava. She has 52 clingdones, so she exchanges half of her clingdones for whatters. The exchange place rounds to the nearest tenth on exchanges. How much in whatters and clingdones does Hannah currently have?

Name: _____

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





word root **aqua** can mean **water** **aquarium, aquatic**

Name: _____

Ava created a game where players collect stars and can trade in stars for gold coins at the shop.

Complete the table by filling in the 2 missing numbers.

Stars	6	12		24	30		42
Gold Coins	1	2	3	4	5	6	7

The store only sells whole gold coins.
If you have 13 stars, then what is the highest number of gold coins that you could get? _____

The game will end when you get 19 gold coins.
How many stars will you need to collect before you will win? _____

Ava checked her program. It uses this equation: Stars = Gold x 6
She decided to change the program to use this equation: Stars = Gold x 8

Fill in this chart to show what the table will look like after she makes this change.

Stars							
Gold Coins							

On the planet Zinkee they use Quinkoos to pay for everything.

Complete the table by filling in the 2 missing numbers.

U.S. Dollars	$43		$129	$172	$215		$301
Quinkoos	1	2	3	4	5	6	7

Write an equation showing the relationship between U.S. Dollars and Quinkoos.

_____

When you arrived in Zinkee, you were given 11 Quinkoos. You spent 4 Quinkoos and exchanged what you had left for U.S. Dollars. How much money in U.S. Dollars were you given?

_____

Draw a picture of what you think 1 Quinkoo could look like.

Name: _____

Which number is the smallest? Which number is the largest?

What is the difference between the largest and smallest numbers?

7.568 7.58 7.567 7.5680

$8 + \frac{4}{5} + \frac{6}{7} =$

$5 - \frac{6}{7} - \frac{1}{3} =$

Reduce $\frac{4}{22}$ to its lowest terms.

This number is one thousand less than 7,423.

What is 19 less than 1,299?

15, 17, _____, 21, 23, 25, 27, 29, 31

How many centimeters are in 60 millimeters?

_____ centimeters

What root word do these words have in common?

photograph, telegraph, pictograph

_____

Name: _____

Which digit is in the millions place in the number 526,471,893?

Write the number that this digit represents.

Round 535 to the nearest hundred.

What number is halfway between 58 and 62?

April bought six candy bars. It cost $3.24. How much did each candy bar cost?

13 + ___ + 26 = 57

7 + 3 - 7

If you exchange 110 dimes for dollars, then how many dollars would you get?

36 ÷ 3 =

Circle the three interjections.

ouch dreary hurray
glisten eek rumor

How many digits are in the current year?

_____

Name: _____

Sudoku Sums of 7

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 7.

Here is an example of a sudoku sum of 7:

1	6

5				4	6
	1				2
	4	1	2	3	
					1
	2				

$$\begin{array}{r} 10 \\ \times\ 12 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times\ 4 \\ \hline \end{array}$$

The month before me has thirty-one days. The month after me has thirty-one days. What month am I?

August June
July May

- ○ droppid
- ○ droped
- ○ dropped
- ○ drapped

Sally counted 85 votes. There were 36 votes for Fred and 15 votes for Mark. The rest were for Debbie. How many votes were for Debbie?

Name: _____

Two games require players to collect gold coins. Here is how many coins are needed for each level of the game Umba:
Level 1: MMMMM
Level 2: MMMMMMMM
Level 3: MMMMMMMMMM
Coins needed for each level of the game Yinka:
Level 1: MMM
Level 2: MMMMMM
Level 3: MMMMMMMMMM
Did you notice each game follows a pattern? Which game would require the most coins to complete level 6?

Each M is equal to 2 gold coins.

Holly and Emma are weighing their rock and fancy stone collections. Whose collection weighs the most?

Holly has five red stones that each weigh eleven ounces, six yellow stones that each weigh nine ounces, and some bigger rocks that altogether weigh exactly fifteen pounds.

Emma has three green stones that each weigh ten ounces, four blue stones that each weigh eight ounces, and some bigger rocks that altogether weigh exactly sixteen pounds.

1 pound = ____ ounces

Which amount of time is shorter?

320 minutes or 6 hours?

320 minutes or 5 hours?

235 seconds or 6 minutes?

1 hour = _____ minutes

1 minute = _____ seconds

Rose is playing a game against Amy. They have to find blocks and bring them back to their digital house. After ten minutes of play, the one with the most blocks wins. Who is currently winning?

Amy has between 30 and 41 blocks. When she puts her blocks into piles of 8, there will be 1 block left over. When she puts her blocks into piles of 5, there will be 3 blocks left over.

Rose has between 30 and 41 blocks. When she puts her blocks into piles of 8, there will be 6 blocks left over. When she puts her blocks into piles of 5, there will be 3 blocks left over.

Name: _____

Cross off the number that does NOT belong.

$4,\ 3\frac{20}{25},\ 3\frac{15}{25},\ 3\frac{10}{25},\ 3\frac{5}{25},\ 3,\ 2\frac{20}{25},\ 2\frac{15}{25},\ 2\frac{10}{25},$

$2\frac{9}{25},\ 2\frac{5}{25},\ 2,\ 1\frac{20}{25},\ 1\frac{15}{25},\ 1\frac{10}{25},\ 1\frac{5}{25},\ 1,\ \frac{20}{25}$

Why does _____ not belong in the pattern?

Subtract $\frac{1}{5}$

Cross off the number that does NOT belong.

46, 48, 50, 54, 58, 64, 70, 78, 85, 86, 96, 106, 118, 130, 144

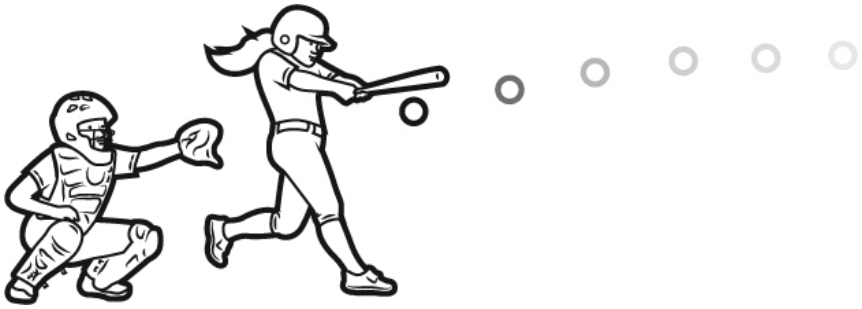
Why does _____ not belong in the pattern?

Name: _____

Gemma is having a spring party. She is creating themed platters of food for the party. She has 16 mashed potato flower beds and 8 mulch meat loaves.
How many guests can Gemma have at her party if each meat loaf serves four and each decorative mashed potato mound serves two?

Will there be any food left over?

Name: _____



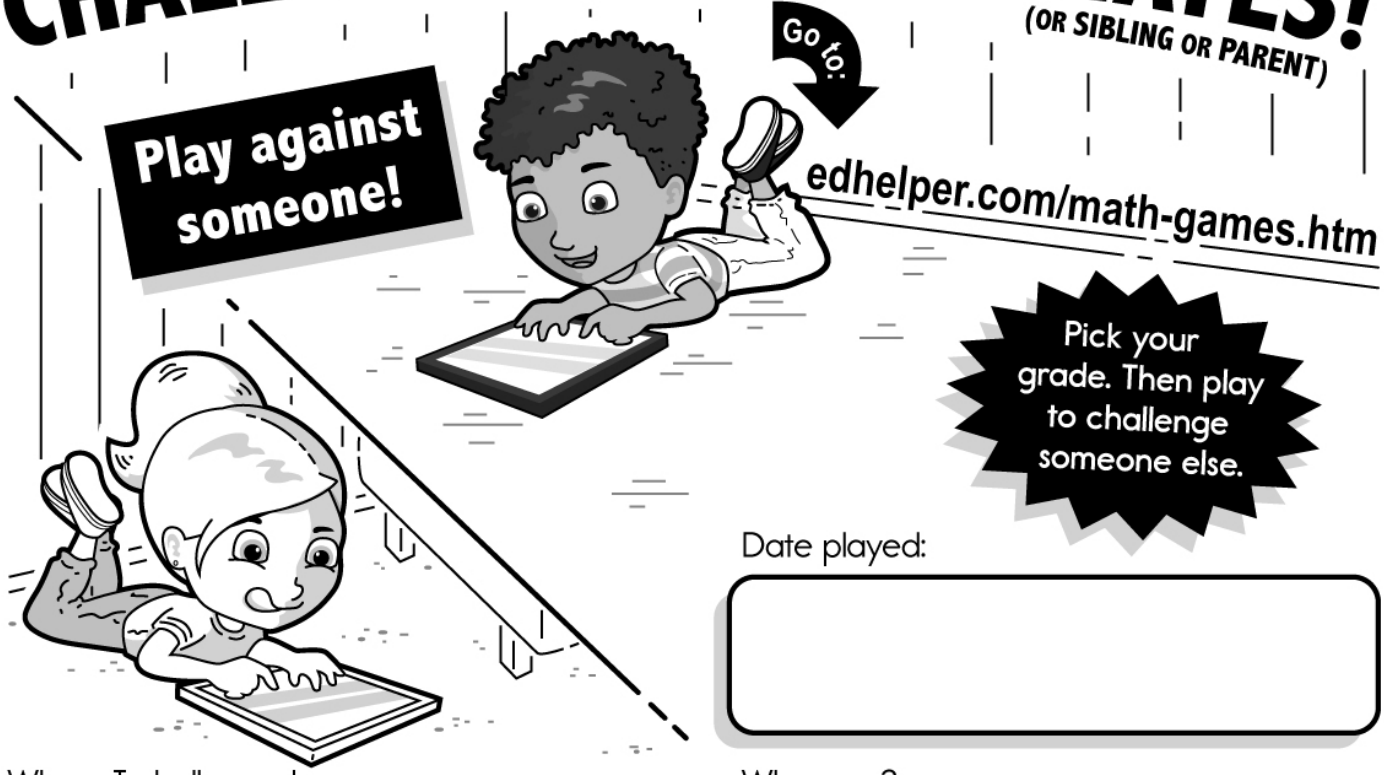
Write your own math problem here.

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

Name: _____

CHALLENGE YOUR CLASSMATES!

(OR SIBLING OR PARENT)



Date played:

Whom I challenged:

Who won?

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

What is the area of a rectangle with sides 3 cm and 6 cm?	The perimeter of a rectangle is 22 cm. The longer side is 9 cm. How long is the shorter side?	It was 7 degrees below zero in the morning. By afternoon the temperature rose 22 degrees. How warm was it?

Name: _____

5	7	9	11	13
15	17	19	21	23
25	27	29	31	33
35	37	39	41	43

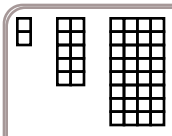
A pattern is represented in the boxes. The number 19 is in row 2, column 3.
a. What number is in row 4, column 2?

b. If the pattern continues, what number would be in row 5, column 5?

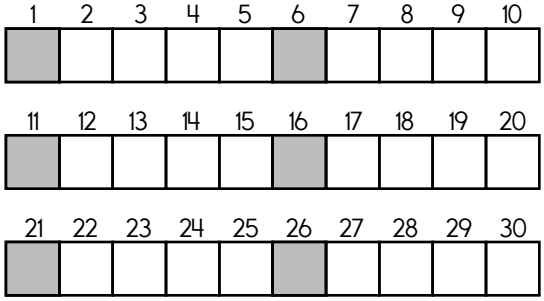
c. If the pattern continues, what number would be in row 7, column 4?

Find two consecutive numbers that have a sum of 131.

Find three consecutive numbers that have a sum of 99.



How many boxes across and how many boxes down do you think the next shape in the pattern would be. Explain why.

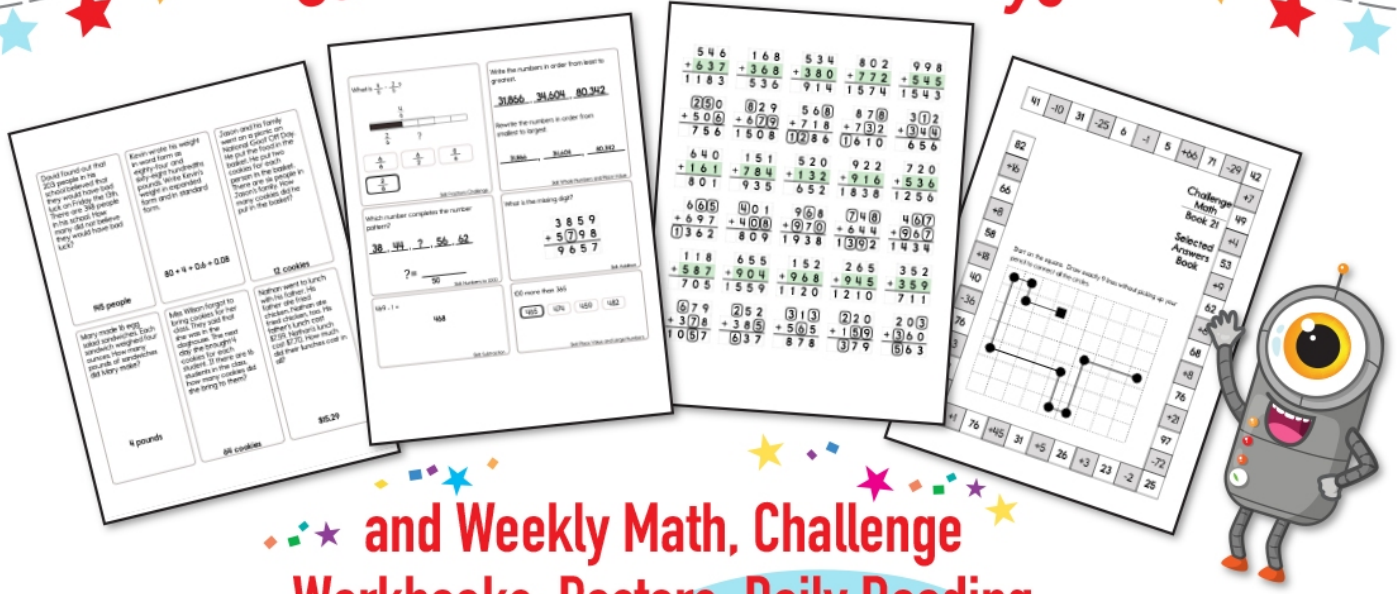


If this pattern continues, color how these squares would look:

a. 49 50 51 52

b. 80 81 82 83 84

Subscribe to Get Answer Keys



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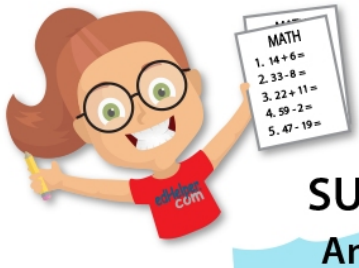

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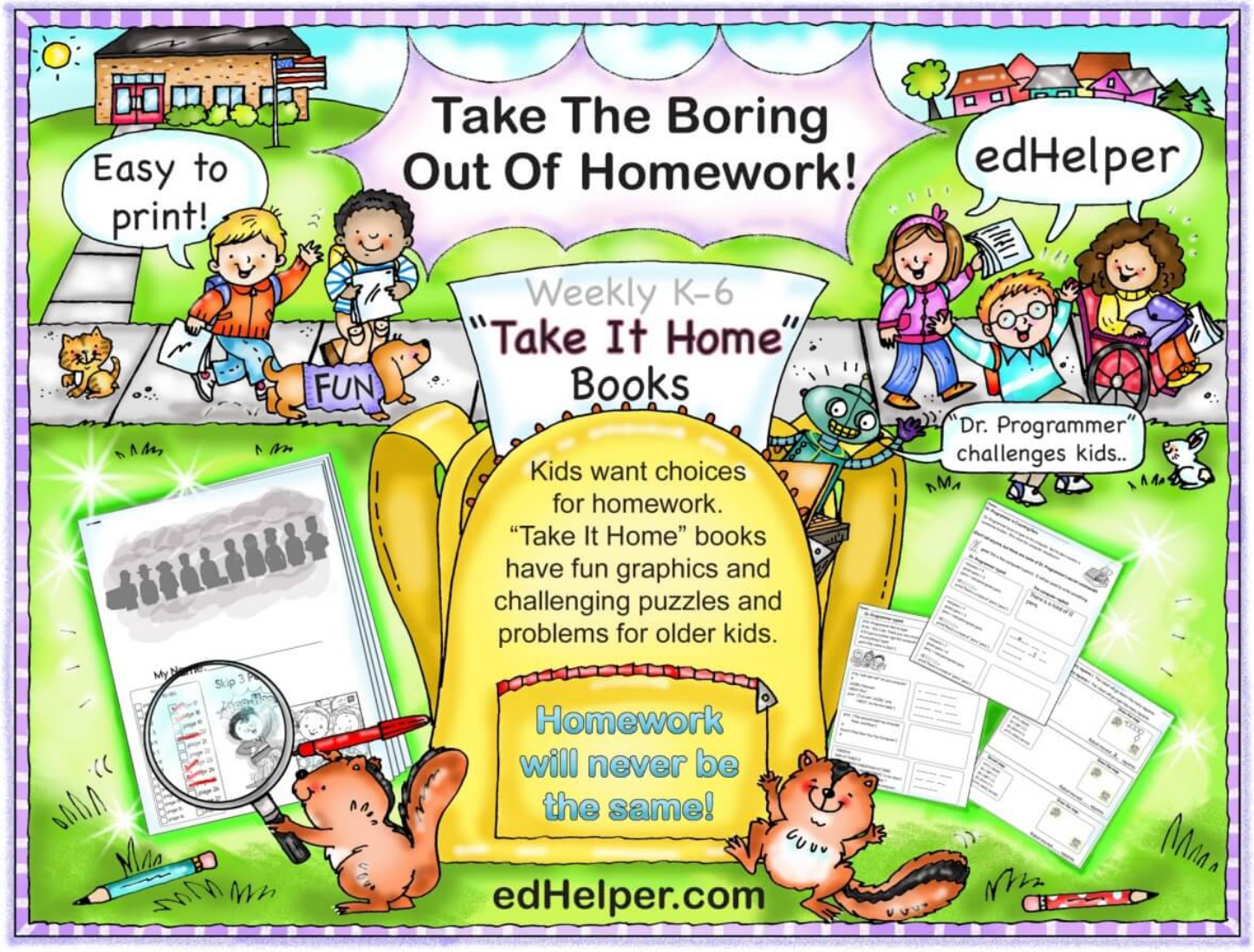
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