10	+58		+15		$-\frac{2}{12}$		+28		$-6\frac{3}{5}$

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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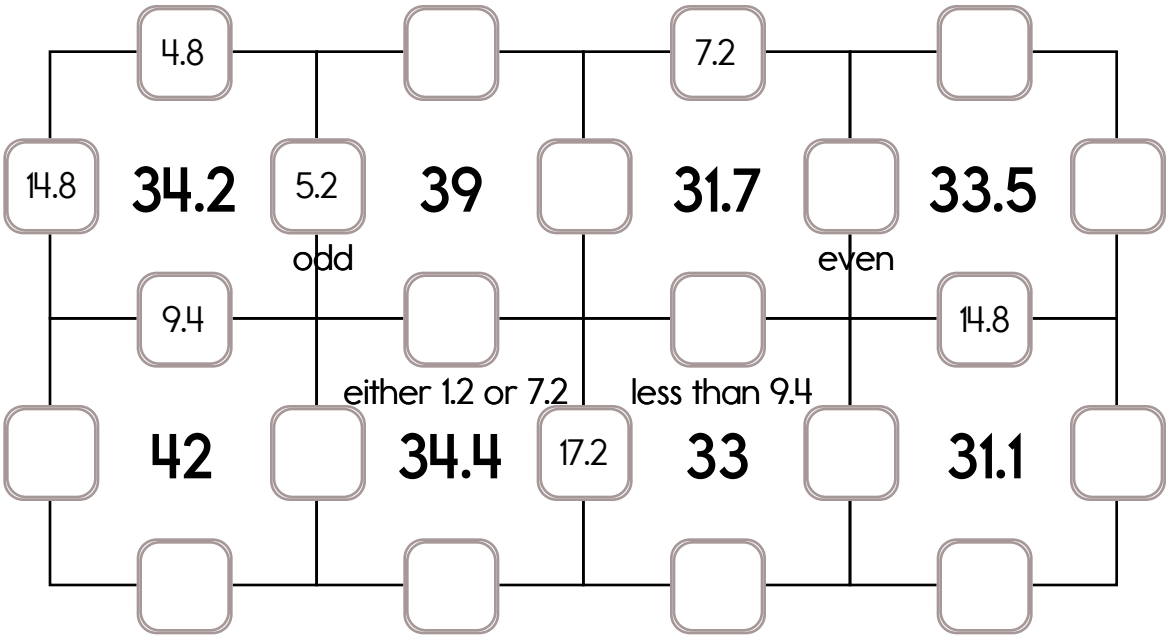
Challenge Math
Book 29

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: 25.3, 17.2, or 14.8.

The other three numbers have to all be DIFFERENT and must be from these: 2.1, 1.2, 4.8, 7.2, 9.4, or 5.2.



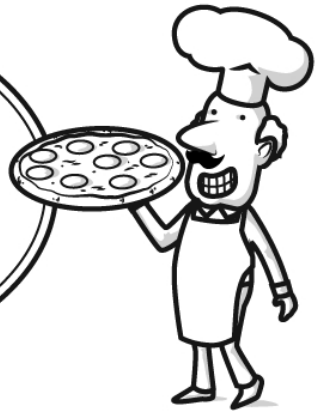
	$-\frac{4}{5}$		-51		$-3\frac{1}{12}$		$+\frac{3}{5}$		-11

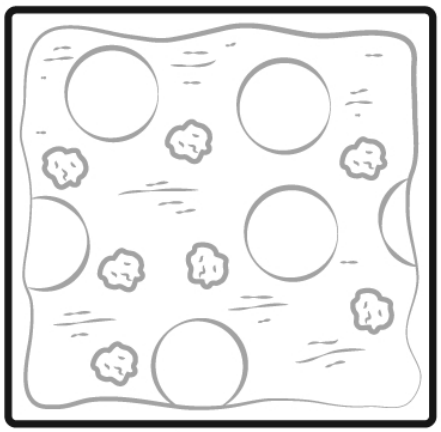
$+\frac{4}{10}$									
$61\frac{41}{60}$									
$-\frac{2}{5}$									+8
+30									$+\frac{1}{10}$
+1									-31
-12									-5
$-7\frac{2}{12}$									$-\frac{7}{10}$
									$76\frac{1}{30}$
+42									$-2\frac{6}{12}$

Name: _____

Tony's *Famous* Pizza Shop

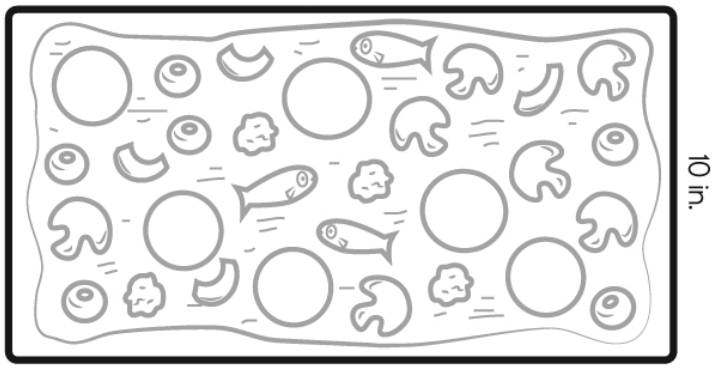
Fill in the area and perimeter or circumference for each pizza.





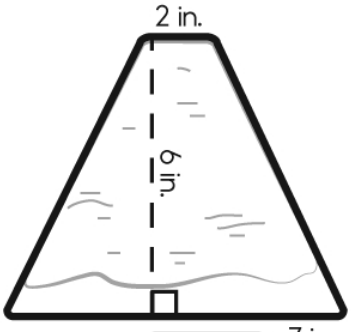
Area = ☐

Perimeter = ☐



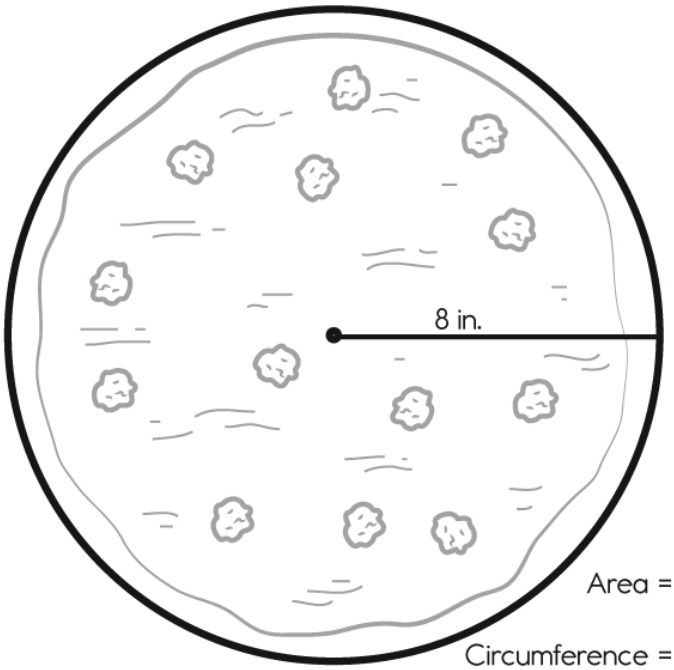
Area = ☐

Perimeter = ☐



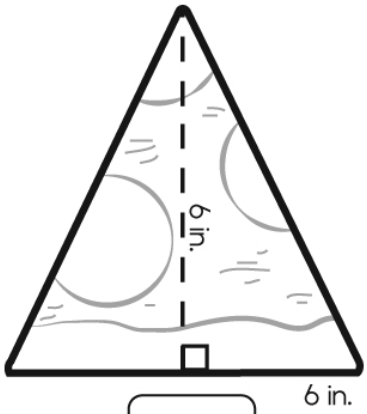
Area = ☐

Perimeter = ☐



Area = ☐

Circumference = ☐



Area = ☐

Perimeter = ☐

Name: _____

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

_____, _____, 18, 20, 22, 24

12, 14, _____, _____, 20, 22, 24, _____, _____

_____, 10, _____, _____, 16, 18, 20

Complete each pattern. Write what the rule is.

19, 25, 32, 40, 49, 59, 70, 82, 95, 109, 124, _____, _____, 175

29, 35, _____, 50, _____, _____, 80, 92, 105, 119, 134

_____, _____, 44, 52, 61, 71, _____, _____, 107, 121, 136, 152, 169

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	3	2	
4	1	4	
3	2	3	
1	4	1	

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

3 2 1 4

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

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

1 2 4 3

1	2	3	
	4	1	
1	2	3	4

Hint - These numbers are missing:

2 3 4

4		2	
2	1	4	3
4		2	1

Hint - These numbers are missing:

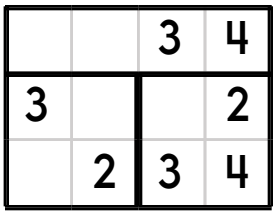
3 3 1

two ○ 2 ○ 6 ○ 1	9 tens and 3 ones ○ 390 ○ 93 ○ 3	Write the missing sign. 11 ___ 1 = 10

Name: _____

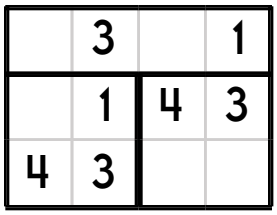
Fill in the missing numbers.

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



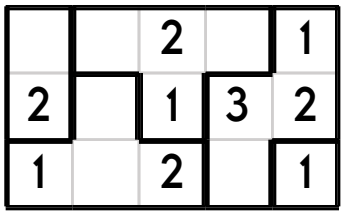
Hint - These numbers are missing:

1 1 2 4 1



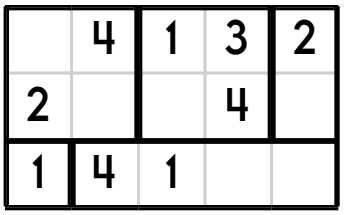
Hint - These numbers are missing:

1 2 4 2 2



Hint - These numbers are missing:

4 3 4 3 1 4



Hint - These numbers are missing:

1 3 2 2 3 1

16 + ___ = 26

How many nickels do you need if you want to have exactly 25 cents?

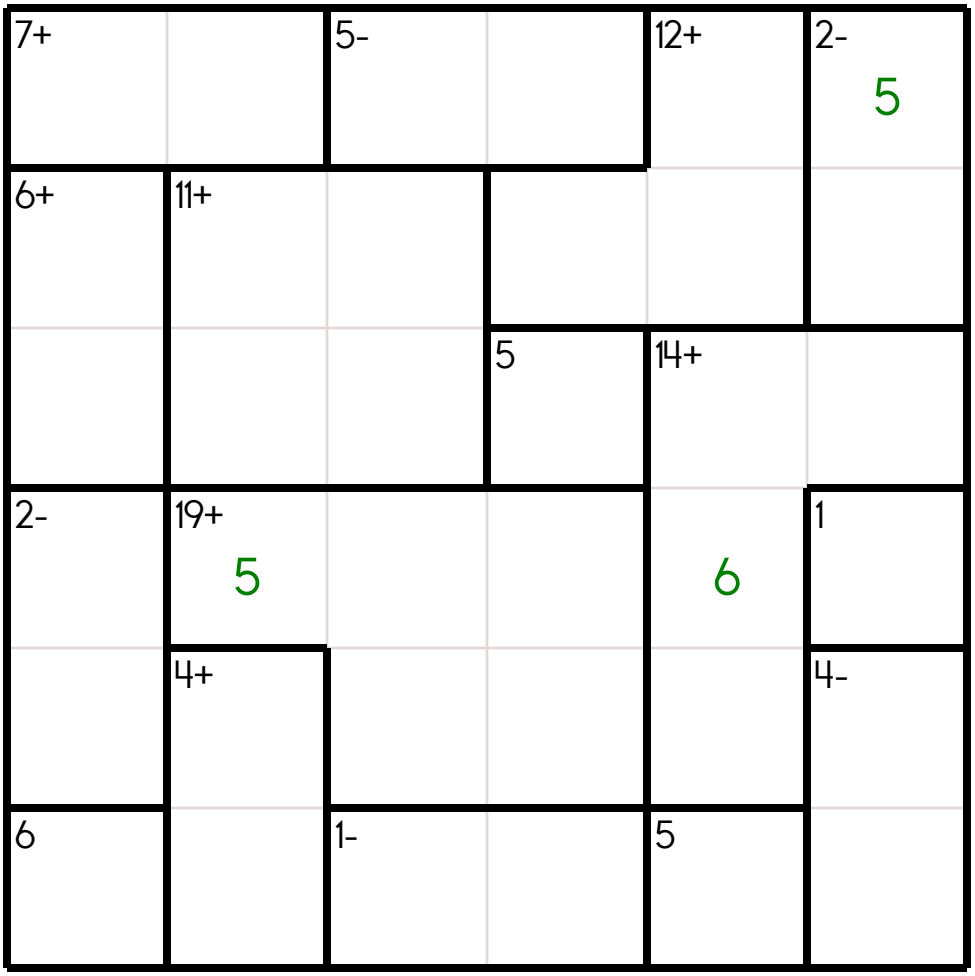
What is ten more than 54?

Count by 4s.

27 31 ____

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 plus sign, the given number will be the sum of all the digits in the cage.
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.



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

____ + 1 = 4

5 - ____ = 2

3 + ____ = 7

5 + ____ + ____ + ____ + ____ = 19

____ - 2 = 4

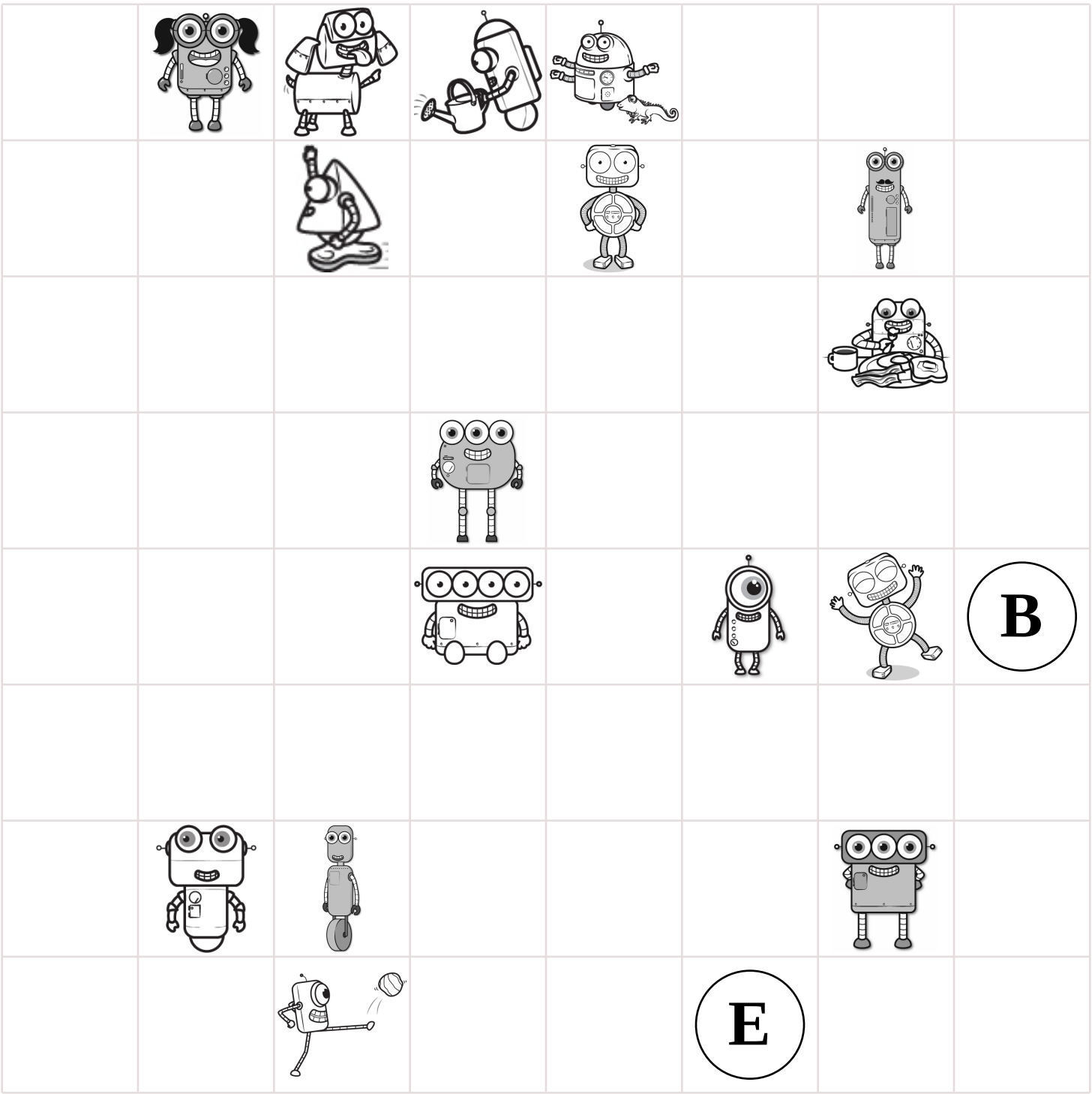
____ + 1 = 6

____ - 2 = 2

6 - ____ = 5

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.

Name: _____

I forgot to tell you that there was a person in front of Grace at the exchange booth. That person was trying to exchange $68.75 from United States money into Canadian.
"That will be $75.63 in Canadian," said the lady working at the booth.
What coins and bills do you think she gave the person? It has to total $75.63 in Canadian.
Canada has six types of coins: 5¢, 10¢, 25¢, 50¢, $1, and $2.
Canada also has bills that are issued in $5, $10, $20, $50, and $100 denominations.

Show your work.

Name: _____

If you take the first number and subtract it by the second, the difference is 18.

What are the two numbers?

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

70 divided by 10 equals

8 x 77 ÷ 11

59, 68, 77, 86, 95, 104, _____, 122

4, 8, 12, 16, _____, 24

The radius of a circle is 485 cm. What is the diameter of this circle?

word root **con** can mean **together** **contacts, contract**

Name: _____

In each group, circle the number that has the greatest value, and put a square around the number that has the least value.

3^2	3^4	3^5	3^3
7^1	7^4	7^2	7^5

What is the greatest common factor of 8 and 4?

What is the least common multiple of 3 and 7?

12 - m = 1

36 + n = 47

How many centimeters in 1.4 meters?

A toy car can go 3 mph. How long would it take to go 10 miles?

897 - 626 = _____

9 x 7 =

1 lb = 16 oz

19 lb = _____ oz

Name: _____

$$\begin{array}{r} 988 \\ +\ 84 \\ \hline \end{array}$$

$$\begin{array}{r} 7{,}331 \\ -\ 6{,}185 \\ \hline \end{array}$$

$$\begin{array}{r} 616 \\ -\ 42 \\ \hline \end{array}$$

$4 - \frac{1}{2} - \frac{2}{3} =$

Reduce $\frac{10}{40}$ to its lowest terms.

Write the reciprocal.
11

Find 42% of 299.

Find 4% of 105.

Change $\frac{1}{2}$ to a decimal.

126 is what percent of 280?

Change $\frac{22}{50}$ to a decimal.

Change 0.19 to a percent.

Change $\frac{91}{100}$ to a percent.

Change 4% to a decimal.

Find 80% of 245.

Name: _____

Maria wanted to plant flowers in her yard, but wasn't sure how big to make the flowerbeds. She asked the owner of the nursery for some ideas. He told her that a bed three feet long and nine inches wide would be the right size. If she plants thirteen flowerbeds of that size, what will the total area of the beds be?

Ms. Taylor bought $\frac{1}{2}$ of a bushel of zucchini to put on her neighbor's porch. The zucchini cost $23.68 per bushel. She also bought a basket for $8.70 and 1.25 yards of ribbon at $0.85 per yard. Her neighbor was very pleased with the pretty basket of zucchini. How much did Ms. Taylor spend?

$|-6| + z = 3$

$z =$

$6 \times (32 \div 4) - 40 \div 10 =$

Simplify.

$\frac{164}{328} =$

Ulalie C. Urchin bought five tickets for the floor show at a cost of $7.90 each (sand dollars, of course!). He gave box office clerk $50. How much change did Mr. Urchin get in return?

"Simplify your life. Find extra minutes or even hours in your day. You can have at least 51% more free time. To find out how, just send us $25 today," the television announcer trumpeted. Write 51% as a decimal.

April's recipe for Coca-Cola cupcakes calls for a third of a cup of Coke and makes 10 cupcakes. She wants to make the cupcakes for her class, so she needs 33 cupcakes. How much Coke will she need for 33 cupcakes?

Name: _____

Jack picked pecans for 5 days. He picked a number of pecans equal to the largest 4 digit number that can be written with a 3 in the hundreds place and no digit used more than once. How many pecans did he pick?

Jason and his friends are planning a trip to the World Eskimo-Indian Olympics in Fairbanks, Alaska. It is 2,934 miles from their town to Fairbanks. If they drive 420 miles each day, how long will it take them to get to Fairbanks?

The science club has raised $154.24 to buy food for a polar bear cub at the zoo. It costs $53.55 to feed the cub each week. How much more money does the club need to raise to feed the cub for one month (four weeks)?

$4 \times 4 \times 4 \times 4 = 4^x$

What is the value of x?

$13t - 8.7 = 82.3$

$t =$

What is the greatest common factor of the numbers 70 and 28?

If a rubber band can be stretched to a circular shape that has a radius of 2.2 inches. How many 1.2-mm diameter toothpicks of could fit within it? (1 inch = 25.4 mm)

If you predict that 3 coin tosses will result in 3 heads in a row, what is the probability that you are correct?

Sandy's Sweet Shoppe sold 30 chocolate ice cream cones on Sunday. That amount is $\frac{4}{5}$ of the total number of cones sold. How many cones were sold in all?

8 kg = _____ g	7 x 3 = _____	25 ÷ 5 = _____

Name: _____

Emma wanted a Levi Strauss & Co. faded blue denim jacket. She found two that she liked. At Kitty's Korner the jacket cost $54.86. At Elementals, the same jacket cost $63.38. How much more did the jacket cost at Elementals?

It was such pandemonium. There were 926 cars stopped on the highway by an accident. If there were an average of 2 people in each car, how many people were waiting in the cars in all?

There is no ethnic majority in Hawaii. Everyone is in a minority. Caucasians (haoles) are about 34/100 of the population. Write the fraction in simplest form.

0.5 x 0.4

8 x 10 - 3 + 4 x 4

$16.6197 \times 10^4 =$

If the average marshmallow weighs 0.12 ounces, how much will a bag of 62 marshmallows weigh? Don't forget to include 2.4 ounces for the weight of the bag.

The city's Freedom Memorial Garden was enclosed by a fence put up in the shape of a parallelogram with a base of 139 feet and a height of 113 feet. What was the area of the garden?

Everyone was making a poster about forgiveness for Let It Go Day. Max wanted his to be a little different. He decided to make it round. If his poster has a radius of five inches, what will the circumference of the circle be?

Name: _____

Russia has a coastline of 37,653 kilometers. The United States has a coastline of 19,974 kilometers. Round off these lengths to the nearest thousand kilometers, and then compare the coastline of the United States to the coastline of Russia by writing them as a fraction in simplest terms.

Maryville Elementary School orders milk in the ratio of 2 pints of chocolate to 3 pints of plain. Each day just enough milk is ordered for each child to have 1 pint. On Monday 330 students were present. How many pints of each kind of milk were ordered?

$22 \div 2 + 8$

0.2×0.06

Simplify.

$\frac{5{,}400}{9{,}000} =$

There are 45 trucks in the parking lot of the Midtown Mall. Peter thinks 15 of them are ugly. What is the probability that the next person that gets into a truck will get into an ugly truck?

Live coverage of the Boston Marathon begins at 11:30 a.m. and lasts until 2:30 p.m. On the same day, it will be re-aired from 5:00 p.m. to 7:00 p.m. How much television time will be devoted to the Boston Marathon?

Ms. Robinson borrowed $4,100 to help her finish her last year of master's degree classes in teaching reading. She will repay it in three years at a simple interest rate of 6.1%. How much will she have to repay at the end of three years?

$0.7\ (0.2\ (0.7 + 6)) =$

$|-8| - b = 12$

$b =$

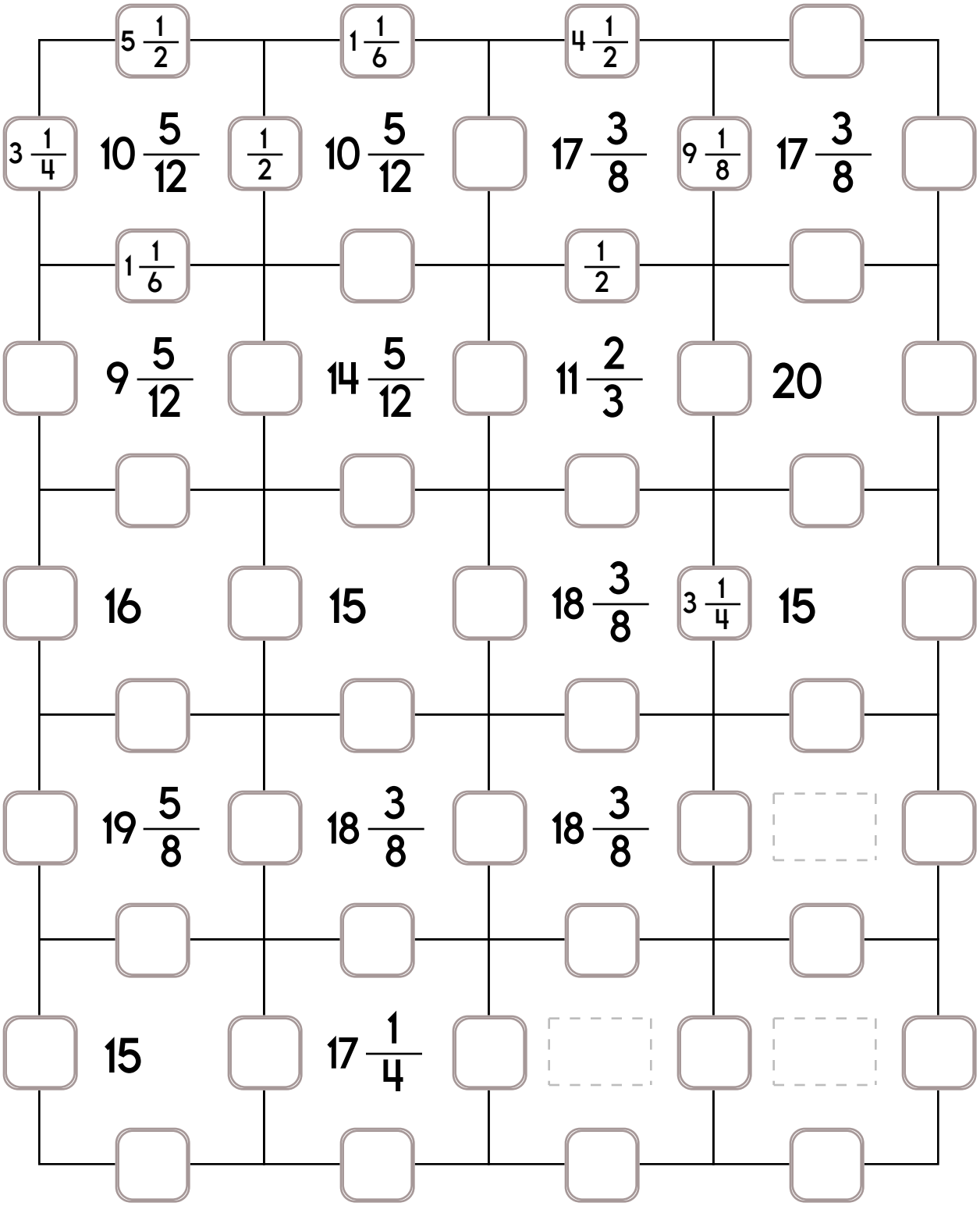
$(0.9)(0.12)$

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: $6\frac{3}{4}$, $9\frac{1}{8}$, or $1\frac{1}{6}$.

The other three numbers have to all be DIFFERENT and must be from these: $3\frac{1}{4}$, $5\frac{1}{2}$, $4\frac{1}{2}$, or $\frac{1}{2}$.



Name: _____

April worked overtime at the lab to perform a chemical analysis on some sludge of unknown composition. She found it to be 31.2% water by mass. If she completely dried a 138 g (original mass) of the sludge, how much water was removed in the drying process? Round your answer to the nearest hundredth.

Ava found a recipe for baked Indian pudding online. The recipe called for half of a cup of maple syrup, half of a cup of light molasses, and one-fifth of a cup of brown sugar. How much "sweet stuff" would be needed to make the recipe?

Megan rode her bike around the hike and bike trail for half an hour and averaged 16 miles per hour. Amy rode her bike around the trail and traveled 14 miles in 32 minutes. What was the difference in their average speeds? Round your answer to the nearest tenth.

A sample of steel made at the Bigtown Steel Works, was analyzed and found to contain 0.08% carbon (by mass). How many kilograms of this kind of steel could be made from 0.3 kg of carbon? Round your answer to the nearest hundredth if needed.

Farmer Bob is considering buying a new field that is next to one he already owns. The field he is considering is a perfect square. The fence along each side of this square field is made of old logs and is a third of a mile long. If he can walk at a rate of four miles per hour, how long will it take him to inspect the fence all the way around this field?

One-fourth of the students in James' class in Perth are immigrants. If there are twenty-eight people in the class, how many students are not immigrants?

Name: _____

This number is so cool. The tenths place is twice its hundredths. The tens place is 4 less than its ones. The sum of its digits is 11. What's the cool number?

__ __ . __ __

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

"My model truck can go 12.3 mph, and its battery can last 31 minutes," says Megan.

"Well, my car can go 12.8 mph," interrupts Gavin. "And it can last 28 minutes."

Mrs. White decides to put them both on a track to test. She runs them both for 36 minutes.

Which car will go farther? By how many miles?

Name: _____

Puzzle:

		8	#		27
8				8	45
8	▭		8	▭	56
#	#	#	#		24
	▭	#	▭		58
43	48	38	30	51	+

Work Area:

		8			27
8				8	45
8			8		56
					24
					58
43	48	38	30	51	+

The sum for each column and row is given.

= _____ = _____ # = _____

▭ = _____ = _____

Puzzle:

				34
				38
				38
				34
40	32	42	30	+

Work Area:

				34
				38
				38
				34
40	32	42	30	+

The sum for each column and row is given.

= _____ = _____ = _____

= _____

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 20 ☐ I decided to skip this page

edHelper

Name: _____

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

189, 161, 136, 114, 95, 79, 66, 56, _____, 45, 44

Write the missing family fact.

64 ÷ 16 = 4

64 ÷ 4 = 16

16 x 4 = 64

$11 \div \frac{1}{4}$

It's 8:00 a.m. and Megan is getting ready for soccer practice. If practice starts at 3:45 p.m., then how much longer until soccer starts?

Round the decimal 0.645 to the nearest hundredth.

G, M, I, P, _____, S, M, V, O, Y

What 5 coins add up to 75 cents?

How much time is it from 6:00 a.m. to 11:15 a.m.?

56, 63, 70, 77, _____, 91

How much money is 1 quarter, 1 dime, 5 nickels, and 1 penny?

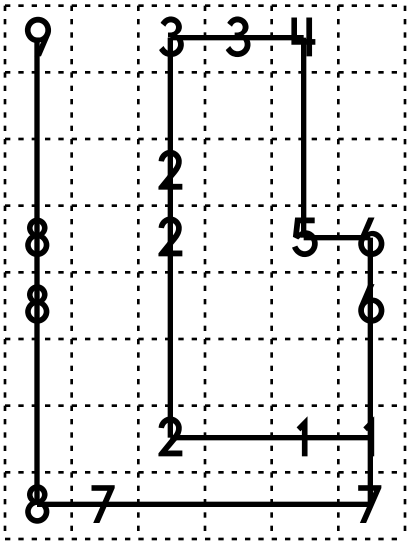
4 x 54 ÷ 6

72 divided by 6 equals

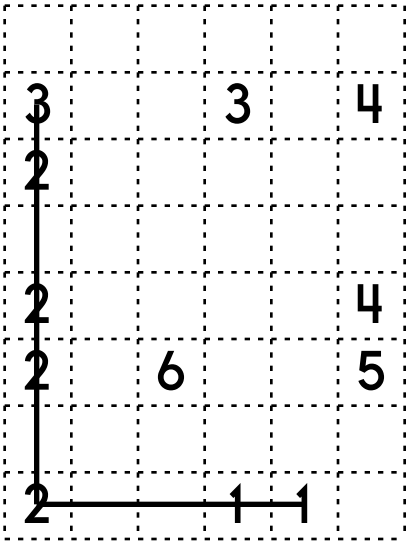
Name: _____

Can you draw lines to cover every number or shape in the picture?
You can only move left, right, up, or down. And definitely no starting or stopping in a blank spot!
The first one is already done for you. Good luck.

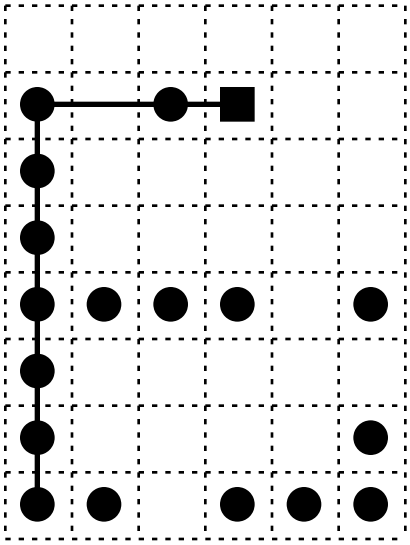
Draw exactly 8 lines.
Start on 1.
Do not pick up your pencil.



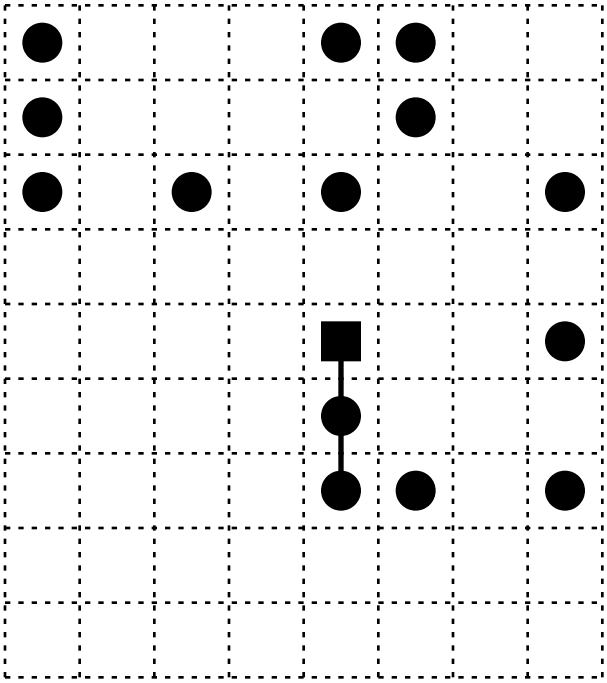
Draw exactly 5 lines.
Start on 1.
Do not pick up your pencil.



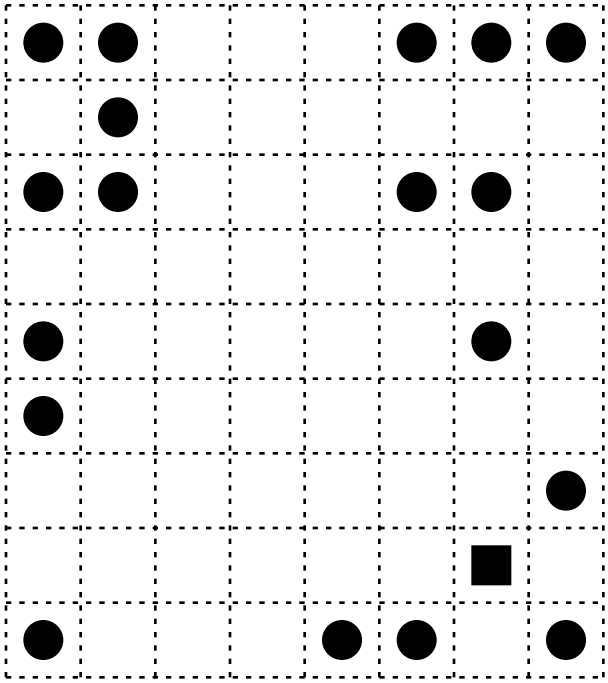
Draw exactly 5 lines.
Start on the square.
Do not pick up your pencil.



Draw exactly 7 lines.
Start on the square.
Do not pick up your pencil.



Draw exactly 8 lines.
Start on the square.
Do not pick up your pencil.



Name: _____

Solve for the unknown value. Hint: It is a positive whole number.

$56 + g = 102$ $g =$ _____

$8r = 40$ $r =$ _____

$y + 34 = 85$ $y =$ _____

$10g = 50$ $g =$ _____

$32 + z = 70$ $z =$ _____

Figure out the greatest common factor of the following numbers:

34 14

96

Name: _____

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

44% of 175	22% of 150	50% of 188	80% of 195
20% of 160	95% of 160	78% of 200	48% of 200
64% of 50	55% of 140	94% of 100	21% of 100
33% of 100	76% of 200	96% of 100	25% of 84

A toy car can go 4 mph. How long would it take to go 9 miles?

Round 17,606 to the nearest thousand.

Round 85,259 to the nearest hundred.

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

$8\frac{7}{8} + 9\frac{1}{8}$

The perimeter of a rectangle is 22 cm. The longer side is 8 cm. How long is the shorter side?

4 x 5 x 10 - 11

7, 9, 11, _____, 15, 17, 19

29 + n = 46

Name: _____

Ms. Floop had 161 grams of potassium chloride to divide among her class of 23 students. How much should each student get?

Peter ran in a race to raise money for the Madison River Clean-Up. He ran the first half of the race 2.7 minutes faster than the second half. He ran the second half in 20.3 minutes. What was Peter's total time?

Is there any pair of numbers whose product is the same as its sum?

0.6 x 0.7

What is the greatest common factor of the numbers 91 and 65?

(0.5)(0.11)

A school play (with three acts) started at 6:00 p.m. and lasted until 7:17 p.m. Half the time was spent on Act 1 and $\frac{1}{4}$ of the time was spent on Act 2. How many minutes were spent on Act 3?

Connor threw a football as far as he could 3 times and had an average distance of 36 yards. He threw it again and his new average was 37 yards. How far was his 4th throw?

Max cut an old blanket into strips to weave into a rug. The strips were 9 feet long and 1 inch wide. He had 37 strips. What were the dimensions (in feet and inches) of the rug before he cut it up?

Name: _____

Amy spends $1\frac{1}{3}$ hours each day working on her homework. How many hours does she work on homework in 5 days?

Mr. Bloop calculated that he needed to increase his savings by 0.016 every month, just to be on the safe side. What percent increase would that be equal to?

Ready to draw a face? First draw the eyes by drawing two right triangles. Now for the mouth. Draw a trapezoid for the mouth. Draw a hexagon for the nose. Now have fun and finish the face!

Which two of these numbers have a product of 2.86?

0.065	0.052	0.044	0.65
6.5	0.44	0.52	5.2

Name: _____

Every Friday after school, Holly goes to her favorite toy store where they sell squishies. All of the squishies are the same price, and every Friday she has just enough money to buy 12 squishies. She is given back 24 cents in change after she purchases her 12 squishies, and she goes home to find someone to play with. If only she had 99 more cents, she could purchase another squishy!

Today, she picked her 12 squishies as usual.

"Sorry," says Jenny who is running the cash register at the checkout. "You don't have enough money."

"What? Let me check," says Holly as she checks her money. "This is the same amount as I give you each week."

"I know," replies Jenny. "But we had a small price increase of 10% on the squishies. Unfortunately, you can't buy as many as you usually do."

How many squishies does Jenny need to put back?

Show your work.

Draw a squishy when you are done to celebrate your brilliant math skills. Or your brilliant guessing skills! Squishy UP!

Name: _____

Mrs. Smith made !FS!^1^2!FE! of a gallon of mudbug stew for her dinner guests. Each serving of the stew is !FS!^2^3!FE! cup. How many guests can she serve with that amount of stew?

Jessica crocheted a tablecloth for her parents for Parent's Day. She worked 2 !FS!^1^3!FE! hours each day for seven days to make the tablecloth. How many hours did she work in all?

Alex built some birdhouses to welcome the birds that always arrived in early spring. He had a piece of wood 8' x 8.5'. He used 52.3 square feet of it. How many square feet did he have left?

Name: _____

Rewrite 11 - 1

___ + ___ = ___

8 - 17 =

On a number line, what is the number that is 8 to the left of 2?

Write as a decimal.
Fifteen thousandths

Write as a decimal.

$18\frac{83}{100}$

Write as a decimal.
Five and eight tenths

16y = 112

3y = 30

$\frac{99}{N} = 11$

$9\overline{)5.4}$

$$\begin{array}{r} 9.3 \\ \times \quad 7 \\ \hline \end{array}$$

Change $\frac{17}{20}$ to a decimal.

$$\begin{array}{r} 97 \\ \times 19 \\ \hline \end{array}$$

Find the product of 15 and 6.

$$\begin{array}{r} 245 \\ \times 55 \\ \hline \end{array}$$

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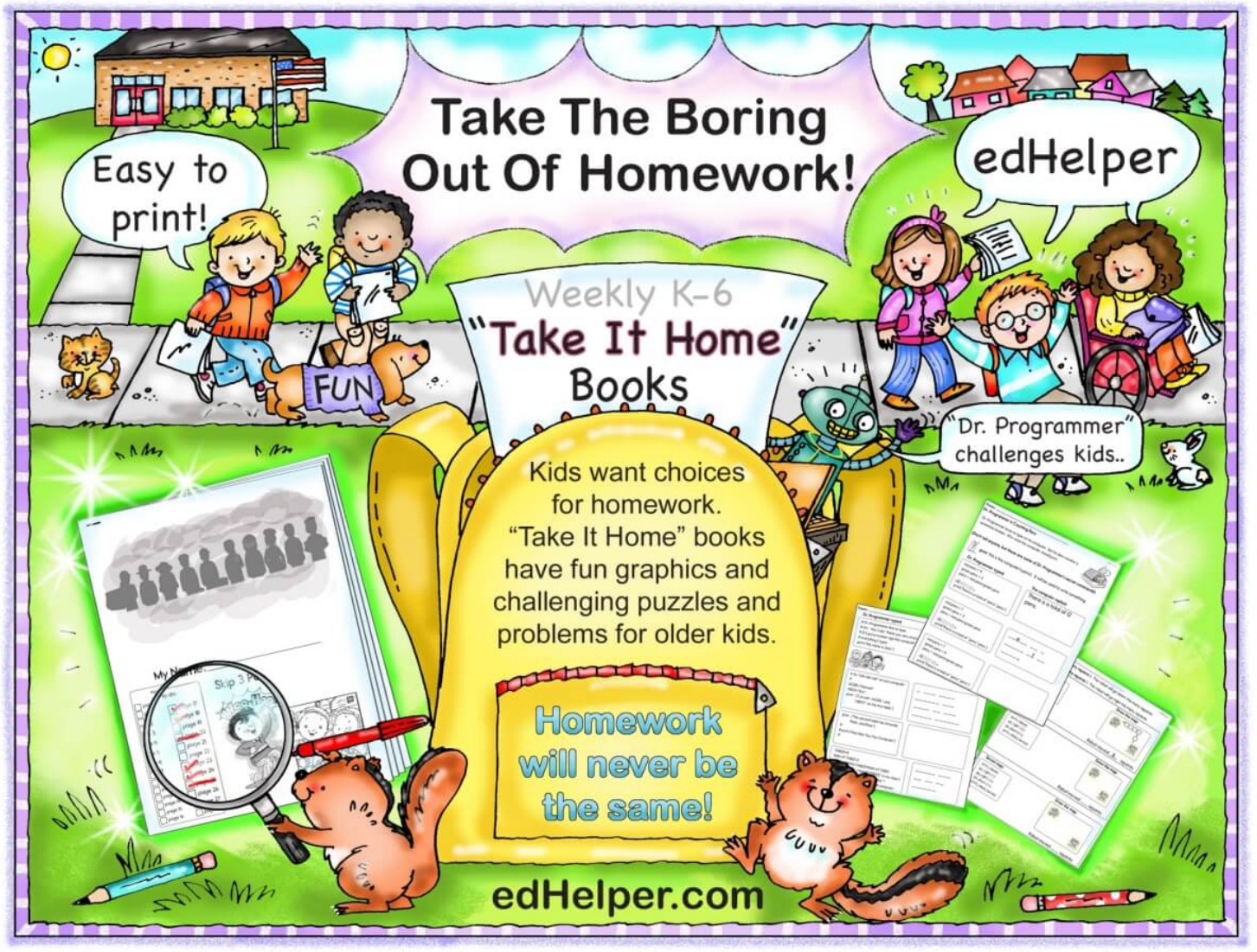
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