Border cells (top row, left to right):

$61\frac{3}{4}$ | +8 | | +30 | $-5\frac{3}{4}$ | | +18 | | $+\frac{10}{12}$ |

Name: _____

Challenge Math
Book 29

Left border (top to bottom): $42\frac{3}{4}$ | $-\frac{3}{4}$ | −31 | +14 | −51 | $-\frac{2}{4}$ | −7

Right border (top to bottom): $-\frac{9}{12}$ | +46 | $-\frac{8}{12}$ | $-\frac{2}{4}$ | −11 | $+2\frac{1}{4}$ | $148\frac{1}{6}$ | +21

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: 29.8, 26.6, or 24.2.

The other three numbers have to all be DIFFERENT and must be from these: 6.2, 2.2, 5.3, 3.3, 7.4, or 9.2.

Puzzle grid:

Row of small boxes: 3.3 | ☐ | 24.2 | 3.3

less than 24.2

6.2 | **43.5** | 26.6 | **42.6** | ☐ | **39.1** | ☐ | **49.7** | 9.2

greater than 2.2

7.4 | ☐ | ☐ | ☐

less than 9.2   less than 6.2

☐ | **48.5** | ☐ | **44.4** | ☐ | **41.8** | ☐ | **43.5** | ☐

Bottom small boxes: ☐ | ☐ | 24.2 | ☐

Bottom border (left to right): −45 | $-\frac{11}{12}$ | −1 | $+\frac{8}{12}$ | $-3\frac{11}{12}$

Name: _____

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

Pyramid 1 (top block):

| 274.45 |

Rows below (bottom row left to right): 5 | 1.9 | 17.1 | 3.27 | 7.65 | 18

Second-to-bottom row contains: 20.37

Pyramid 2 (top block):

$$46\frac{5}{12}$$

Row below: $21\frac{3}{4}$

Next row: $13\frac{1}{2}$

Bottom row: $2\frac{4}{6}$
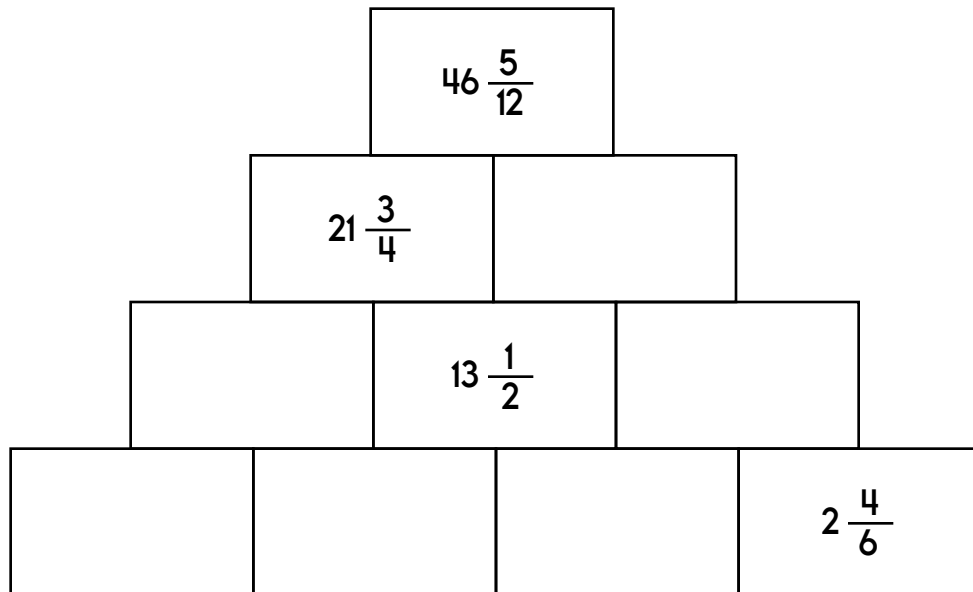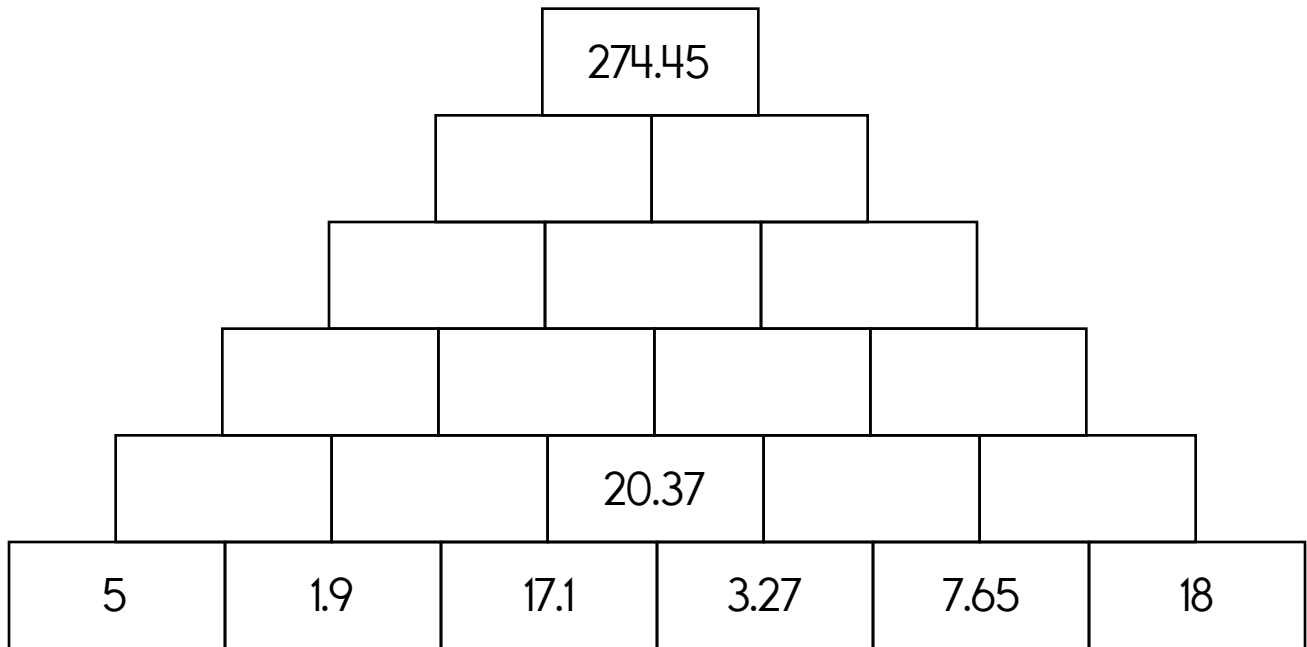
21 cm = _____ mm

Write the missing family fact.

28 x 9 = 252
9 x 28 = 252
252 ÷ 28 = 9

_____

Fun Math

Name: _____

How many centimeters in 3.8 meters?

Round the decimal 0.355 to the nearest hundredth.

62, 74, 86, 98,

_____, 122, 134, 146, 158

How many meters are there in 167 kilometers?

2 x 7 - 1

$5\frac{5}{6} + 2\frac{3}{6}$

(4 x 8) - 9 + 8

What is 50% of 1,562?

$5 \div \frac{1}{3}$

Name: _____

How many minutes is it from 9:00 a.m. to 10:50 a.m.?	Estimate quickly the difference. 7,130 - 1,720	90, 95, _____, 105, 110, 115, 120
Know how many inches in a foot? Okay, smarty pants, how many inches in 5 feet?	A toy car can go 4 mph. How long would it take to go 10 miles?	77 divided by 11 equals
Round 99,750 to the nearest hundred.	T, _____, R, F, P, E, N, D, L, C, J, B	8 - 40 ÷ 10
The diameter of a circle is 1,576 cm. What is the radius of this circle?	25 + n = 40	How much time is it from 6:00 a.m. to 11:35 a.m.?

　　　　Fun Math

Name: _____

Mrs. Jenkins's class wanted a class pet. Most of the boys wanted a dog, but Mrs. Jenkins was fairly certain the principal wouldn't like that idea. After some research and a vote, the class decided to get a fish tank. They started with 5 goldfish. Each fish needed to eat 10 pellets of food per day. Mrs. Jenkins wanted everyone in the class to have a chance to help care for the fish. She decided to choose 2 zookeepers each week. It would be their jobs to feed the fish, change the water, and make sure the counter around the tank was clean and dry. If they split the job evenly, how many pellets will each zookeeper get to give the fish each day?

How many pellets will each zookeeper feed the fish over the course of a school week?

Each bottle of fish food contains 100 pellets and costs $4.00. If the zookeepers feed the fish during the week and Mrs. Jenkins feeds them on the weekend, how long will a bottle of fish food last?

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 9 in your head	imagine 7 in your head	imagine 6 in your head	imagine 4 in your head
double it	double it	multiply 2	add 8
add 4	add 3	double it	multiply 2
	subtract 8	add 4	double it
	subtract 7	add 1	
		subtract 7	
			Add the tens digit to the ones digit.
Write the ones digit.	Write the number.	Write the ones digit.	Write the sum.
___	___	___	___ ___
A	B	C	D E

What is the sum?

A + B + C + D + E

___

Wow! Great job! That's the answer, but do you know how to SPELL the number?

____ ____ ____ __e__

2 before 13 _____	6 after 11 _____	7 after 18 _____
5 before 16 _____	5 after 17 _____	9 after 19 _____
3 before 14 _____	4 after 15 _____	3 after 12 _____

Name: _____

$87\frac{1}{2}$	-3		$+4\frac{1}{2}$		$+1$		$-8\frac{1}{2}$	

$+\frac{1}{2}$

$+39$		$+18$

$+13$		$+\frac{1}{2}$					-58

$+21$

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

$-\frac{1}{3}$		$+\frac{1}{3}$

-55				41

	-40		$+\frac{1}{2}$		$-6\frac{2}{3}$		$+34$	$49\frac{1}{2}$

---

4 6 + 3 7	21 ÷ 7 =	4 3 7 - 3 1 0	Circle the addition property for 35 + 50 = 50 + 35. commutative property associative property

How many kilograms are in 9,000 grams?

_____ kilograms

Cross out all of the prepositional phrases in the sentence.

Charley ran across the street after the ball.

Fun Math

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 6 lines.
Start on the square.
Do not pick up your pencil.

Draw exactly 9 lines.
Start on the square.
Do not pick up your pencil.

Fun Math

Name: _____

Mr. Olivero wanted to make sure that each of his 25 students had enough school supplies to make it through the rest of the school year. When he added up all the work that would be done in each subject, Mr. O. calculated that each student would need approximately 10 pieces of paper per day. He found a great deal on 250-page spiral notebooks. They were on sale for $0.39. If there are nine weeks left in the school year, how many notebooks will each student need in order to have enough paper to last until school's out?

What will Mr. O's total be if he purchases enough notebooks for the entire class?

Name: _____

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

22 x 14 = ●	● 48 x 18 =	39 x 28 = ●	● 49 x 24 =
21 x 12 = ●	● 32 x 45 =	23 x 32 = ●	● 28 x 39 =
45 x 22 = ●	● 40 x 22 =	15 x 32 = ●	● 44 x 15 =
33 x 30 = ●	● 14 x 18 =	22 x 30 = ●	● 24 x 20 =
20 x 44 = ●	● 40 x 36 =	33 x 40 = ●	● 44 x 30 =
11 x 28 = ●	● 36 x 24 =	16 x 46 = ●	● 28 x 42 =

B, G, C, H, D, I, E,
_____, F, K

---

7 x 4 - (12 + 6)

Is 12 a composite or a prime number?

Round 153 to the nearest ten.

---

30 ÷ ___ = 6

Anna has 23 nickels. How much money is that?

How many minutes are there from 8:00 p.m. until 9:30 p.m.?

There are 2 groups of 3 rocks. How many rocks?

Find the product of 6 and 5.

Name: _____

Bob, the donut guy, is working on a new type of donut called the 1.2-ounce sugar mini

donut. Each donut weighs precisely 1.2 ounces.   About $\frac{3}{10}$ of the donut consists of milk,

yeast, flour, and eggs.   The rest of the donut is sugar. Yum!

How many ounces of sugar is needed for each donut?

This number is so cool. The tenths place is twice its hundredths. The tens place is 3 less

than its ones. The sum of its digits is 24. What's the cool number?

<div align="center">__ __ . __ __</div>

Fun Math

Name: _____

Levi Strauss traveled from his home in Bavaria, a distance of approximately 4,038 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 2,509 miles. How much further was his trip from Bavaria to New York City than his trip from New York City to San Francisco?

Hunter said that his science teacher is a geek. He said Mr. Taylor knows more about bugs than he does about people! Mr. Taylor has a bug collection. It is in a picture frame. There are 6 rows in the frame. There are 9 bugs in each row. How many bugs are in the frame?

What 4 coins add up to 56 cents?

Write the missing family fact.

8 x 16 = 128

128 ÷ 16 = 8

16 x 8 = 128

6 x 10 + 5

During the past five weeks, the Miller family worked out together for a total of 50 hours. If they worked out the same number of hours each week, how many hours did they work out each week?

Mr. Allen sells pizza at football games. He was very stressed last night because there were 16,911 people at the game. He was very busy and sold one whole pizza for every 20 people there. How many whole pizzas did he sell?

Jack used 10 cups of sand to build his sandcastle. Then he decided he wanted to add a wall. He used a total of 14 cups of sand. How many cups did he use to add the wall? Write an equation and solve it.

In each pair, circle the word that is spelled correctly.

swimm, swim
height, hieght
molde, mold

1 kg = 1,000 g

21 kg = _____ g

Name: _____

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

Is 20 a composite or a prime number?

The number 55 is more than the number 7 by how much?

How many tens are in the number 80?

Wendy has 24 nickels. How much money is that?

$72 \div 9 =$

Round 1127 to the nearest hundred.

35, 100, 31, 86, 27, 72, 23, _____, 19, 44, 15, 30

It was 86 degrees outside. What would the temperature be if it got 30 degrees colder?

The perimeter of a rectangle is 18 cm. The longer side is 5 cm. How long is the shorter side?

How much time is it from 7:00 a.m. to 10:25 a.m.?

How many centimeters in 1.8 meters?

C, G, _____, O, S, W

Name: _____

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

There are 4 groups of 6 rocks. How many rocks?	8 + 110 ÷ 11	40 ÷ 4 = 10

1, 9, 9, 9, 9, 9, 1, 9, 9, 9, 9, 9, 9, _____, 1, 9, 9, 9, 9, 9, 9, 9, 9, 9, 1, 9, 9, 9

double 20 =

Ava gave out a survey. The answers she got back were 15, 11, 15, and 13. What is the range of these numbers?

$11 \div \frac{1}{2}$

How many meters are there in 21 kilometers?

7, 9, 11, 13, _____, 17, 19, 21

70, 77, 84, 91, _____, 105, 112, 119

The radius of a circle is 540 cm. What is the diameter of this circle?

How many minutes is it from 6:00 a.m. to 11:50 a.m.?

Name: _____

Puzzle:

	3	3	54
🐾	🏆	🐾	84
🏆	🐾	3	36
84	36	54	**X**

Work Area:

	3	3	54
			84
		3	36
84	36	54	**X**

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

🏆 = ____   🐾 = ____   🐔 = ____

Puzzle:

		🐭	112
🐭	🐼	🐭	245
🐭	🐼	🐭	245
196	100	343	**X**

Work Area:

			112
			245
			245
196	100	343	**X**

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

🐼 = ____   △ = ____   🐭 = ____

Name: _____

Complete each pattern. Write what the rule is.

6, 14, _____, _____, 42, 54, 66,

80, 94, 110, 126, 144, 162, 182

37, _____, _____, 63, 73, 85, 97, 111,

125, 141, 157, 175, _____, _____, 233, 255

32, 40, 48, 58, 68, 80, 92, 106,

_____, _____, _____, 170, 188, 208, 228, 250
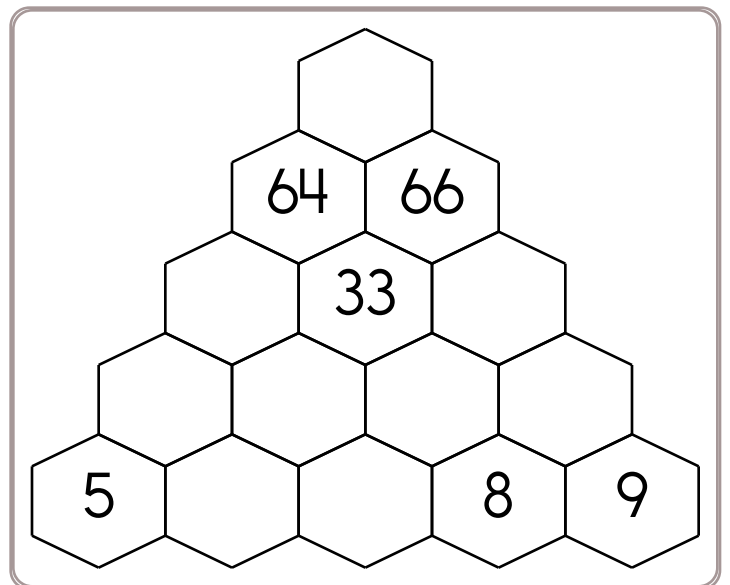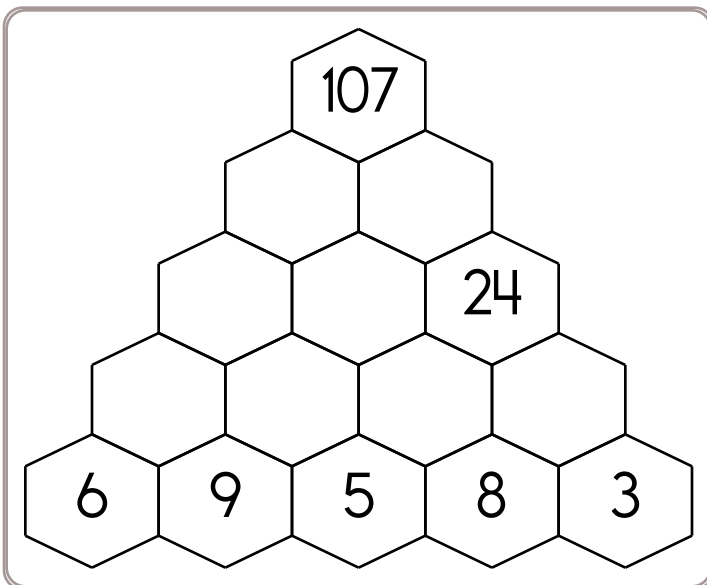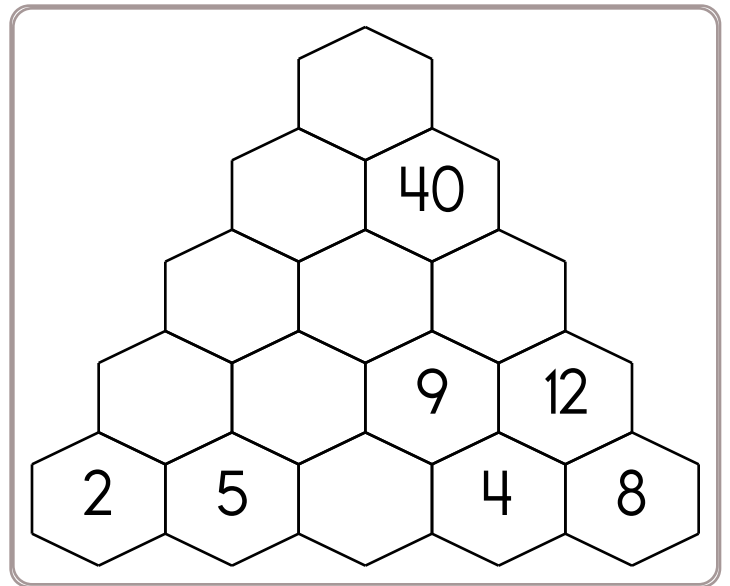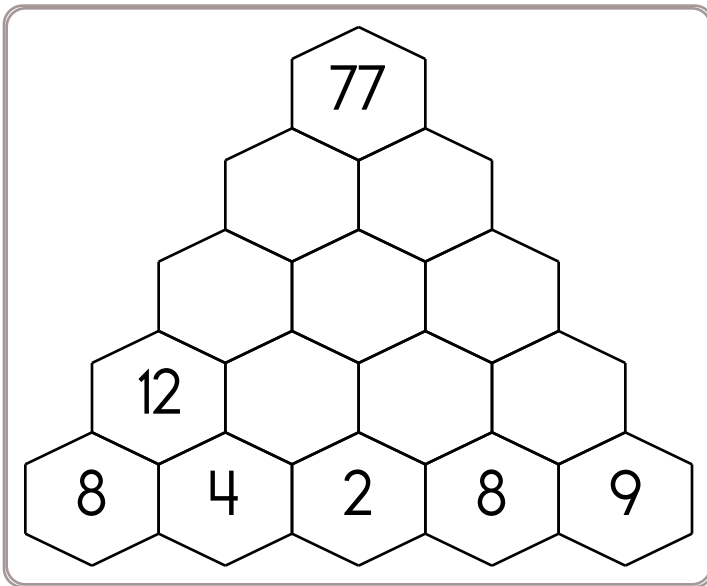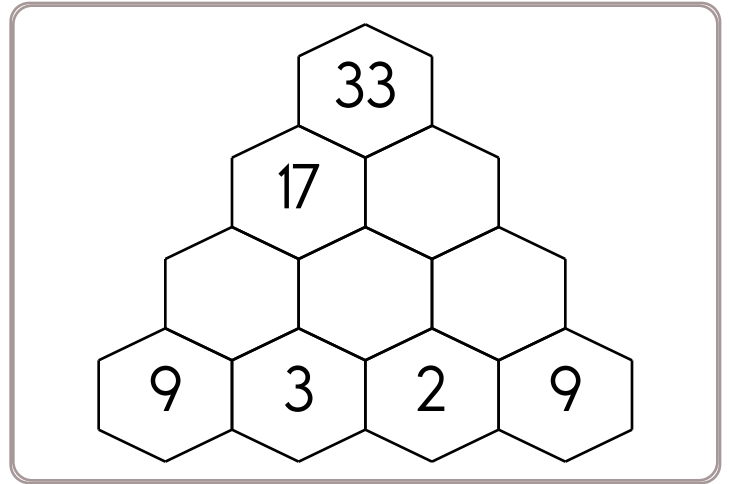
What is the rule for each pattern?

75, 16, 66, 14, 57, 12, 48, 10, 39, 8, 30, _____, _____

76, 70, 66, 62, 56, 54, 46, _____, _____, 38, 26, 30

148, 47, 133, _____, 118, 35, 103, 29, 88, 23, 73, 17, 58

Name: _____

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

Puzzle 1 (top-left):
- 44
- 14 → (9, 5)
- bottom row: 9, 5, 4, 8

Puzzle 2 (top-right):
- 33
- 17
- bottom row: 9, 3, 2, 9

Puzzle 3 (middle-left):
- 77
- 12
- bottom row: 8, 4, 2, 8, 9

Puzzle 4 (middle-right):
- 40
- 9, 12
- bottom row: 2, 5, 4, 8

Puzzle 5 (bottom-left):
- 107
- 24
- bottom row: 6, 9, 5, 8, 3

Puzzle 6 (bottom-right):
- 64, 66
- 33
- bottom row: 5, 8, 9

word root **val** can mean **worth**　　**valiant, valuable**

edHelper.com　　Fun Math
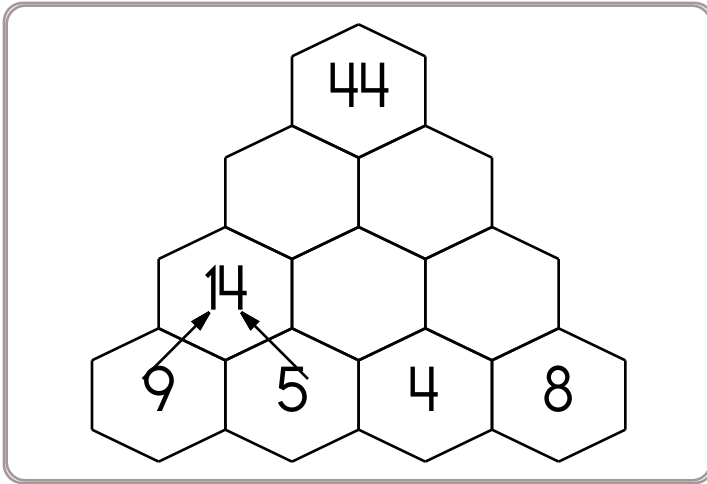
Name: _____

Write the reciprocal. 7	Write the reciprocal. $\frac{1}{19}$	$19 + \frac{3}{7} + \frac{5}{6} =$

Reduce each fraction to a mixed numeral in its lowest terms.

$\frac{76}{16} =$

$\frac{64}{24} =$

$\frac{56}{8} =$

$\frac{10}{20} =$

$\frac{2}{12} =$

$\frac{236}{28} =$

$\frac{2}{9} \times \frac{1}{6} =$

Find the least common denominator.

$\frac{3}{7}$ and $\frac{7}{8}$

$7 + \frac{4}{5} - \frac{3}{8} =$

Write the reciprocal.
14

$12 - \frac{1}{2} + \frac{3}{4} =$

$15 + \frac{7}{12} + \frac{1}{2} =$

Write the reciprocal.

$\frac{7}{8}$

Reduce $\frac{16}{32}$ to its lowest terms.

Fun Math

Name: _____

How many times
do you need to spin?

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

Spin fidget spinner. Quick!   I needed to spin _____ time(s) to finish.

$(3 \times 1 \times 1) + 2 =$ _____

$6 + 11 - 9 =$ _____

$(2 \times 9) \times 6 =$ _____

$7 + 5 + 11 =$ _____

$8 + 2 \times 1 \times 8 =$ _____

$2 + 6 - 7 =$ _____

$1 \times 8 - 6 =$ _____

$5 \times (1 + 1) =$ _____

$5 + 30 \div 6 + 4 =$ _____

$9 \times 1 + 2 =$ _____

$2 + 4 + 6 =$ _____

$(12 - 8) + 10 =$ _____

$(9 \times 7) - 9 =$ _____

$3 \times 5 \times 1 =$ _____

$3 + 6 \times 5 - 8 =$ _____

$11 + (9 \times 8) =$ _____

$1 + 8 \times 7 - 9 =$ _____

$2 + 10 - 6 =$ _____

$5 \times 6 - 6 \times 5 =$ _____

$9 + 3 + 10 =$ _____

$7 - 1 - 1 + 4 =$ _____

$10 + 3 \times 4 =$ _____

$5 + (1 + 2) =$ _____

$(2 + 5) + 6 =$ _____

$7 \times 6 + 2 =$ _____

$9 - 8 + 4 =$ _____

$8 - 6 + 2 =$ _____

edHelper.com   Fun Math

Name: _____

How many times
do you need to spin?

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

Spin fidget spinner. Quick!   I needed to spin _____ time(s) to finish.

4 - 1 - 1 = _____

5 + (6 x 11) = _____

5 + 6 + 14 ÷ 7 = _____

6 + 5 - 7 = _____

(3 x 5 x 2) x 1 = _____

11 + 4 - 5 = _____

9 x 1 + 1 = _____

6 x 3 - 4 = _____

(5 x 6) + 3 = _____

(8 - 8) + 11 = _____

(1 + 8) + 6 = _____

5 x 3 - 3 = _____

1 + 1 x 3 - 3 = _____

6 - 1 + 2 = _____

6 x 5 - 2 - 3 = _____

(3 + 9) x 3 = _____

(1 x 2) + 5 = _____

2 x 3 + 10 = _____

1 + 1 x 3 = _____

10 - 7 - 3 = _____

(4 + 7 + 6) x 9 = _____

8 - 4 + 9 = _____

9 + 6 + 3 = _____

6 x 1 x 6 = _____

4 + 7 + 8 = _____

8 + 6 - 11 = _____

7 + (20 ÷ 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.
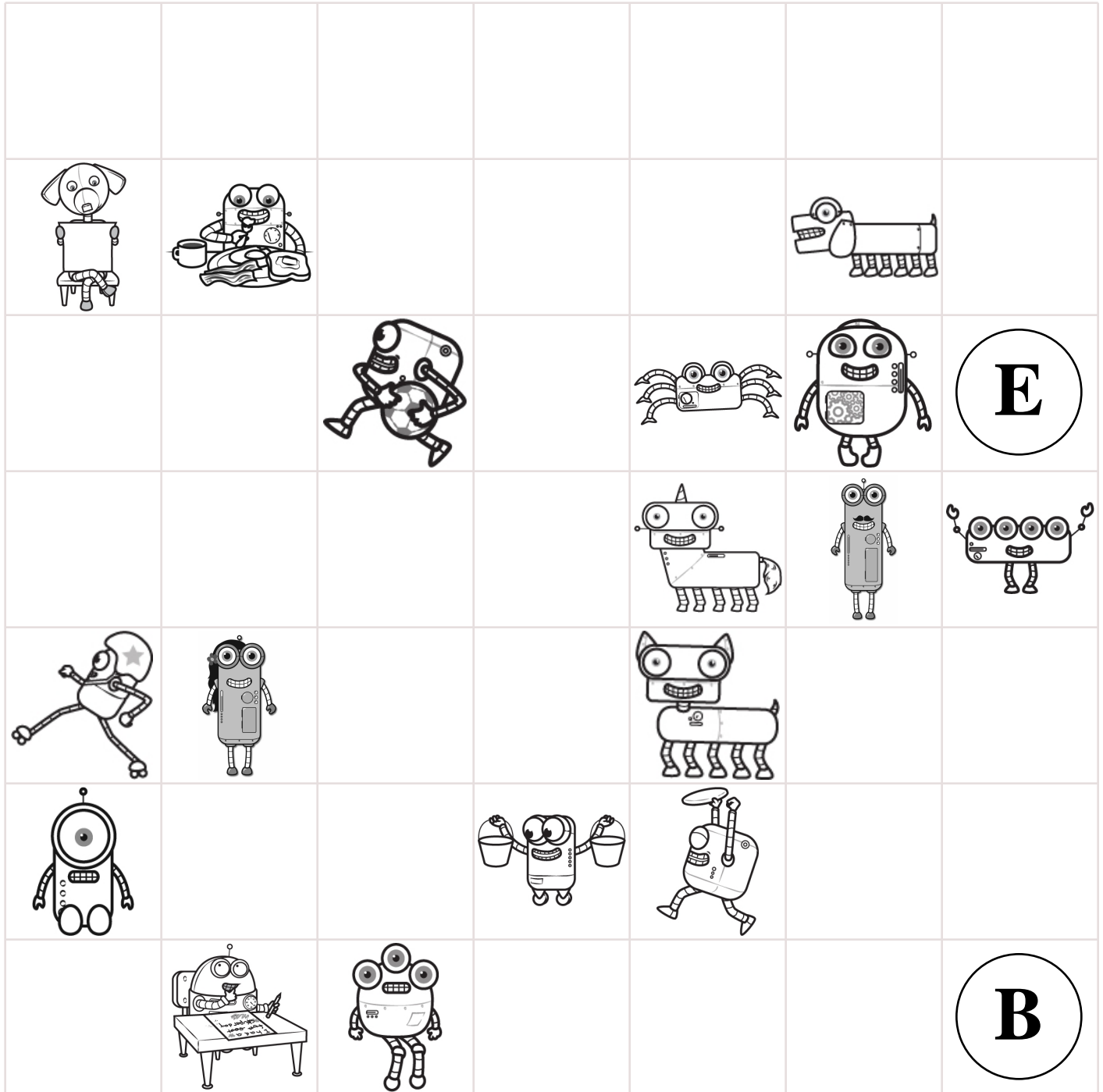
Didn't get them all? That's ok. This was hard. I missed only _____ robot/robots.

Fun Math

Name: _____

Cross off the letter that does NOT belong.

P, Y, Y, A, A, P, Y, Y, A, A, Y, P, Y, Y, A, A, P, Y

Why does _____ not belong in the pattern?

Cross off the number that does NOT belong.

8, 9, 10, 12, 29, 50, 91, 170, 311, 572, 1053, 1936, 3561, 6550

Why does _____ not belong in the pattern?

Fun Math

Name: _____

In 2005, Hailu Negussie of Ethiopia won the Men's Open with a time of 2:11:45. Catherine Ndereba of Kenya won the Women's Open with a time of 2:25:13. How much faster was Negussie's time?

The Midtown Thrift Shop had total sales of $416.30. Of that amount, $254.24 was for clothing. How much of the total sales was not for clothing?

Connor and Emma are doing their math homework. Their teacher gave them each 18 pages of math facts to practice. Each page has 6 rows and 9 columns of problems. Connor can do a row of problems in about 8.3 seconds. Emma is faster. She can do a row of problems in 7.9 seconds.

How much more time will Connor need to finish his math homework?

Rose has a new job working at Pizzeria Magpie. She loves it, but she can only work two hours on Monday, two hours on Tuesday, and nine hours on Saturday. The pizzeria will give her a check every two weeks. She will be paid $12.30 per hour. How much will her first paycheck be?

word root **cogn** can mean **know**   **cognition, cognitive, recognition**
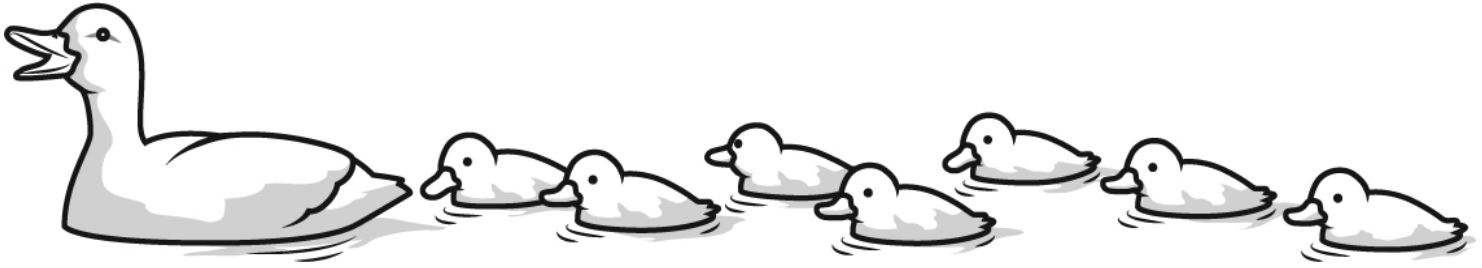
Name: _____

Write your own math problem here.

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

Name: _____

Mr. Jackson has ants and lions on his farm. The ants are his favorite! One day he was

bored and counted all the legs. Between his insects and lions he had a total of 36 legs.

That's a lot of legs! How many ants does he have?

Round 78 to the nearest ten.	Write the number that has exactly 4 thousands.	32 ÷ 8 =

Peter bought 6 dozen cupcakes for a party. How many cupcakes did he buy?	Name the shape with four sides and four angles.	$\frac{1}{9}$, _____, (9) , (81) , (729) , (6,561) , (59,049) , (531,441)

Name: _____

The value of N is 4. What is the value of each of these expressions?

$$N + 226$$

$$N + N$$

$$N \times N - N$$

$$N + N \times N$$

$$\begin{array}{r} 6\,7 \\ +\ 3\,6 \\ \hline \end{array}$$	What number is 399 less than 455?	$$\begin{array}{r} 6\,5\,3{,}1\,7\,8 \\ -\qquad 1{,}6\,2\,7 \\ \hline \end{array}$$
The number 84 is more than the number 7 by how much?	April bought a pack of six waters. It cost $3.72. How much did each water cost?	Find the product of 7 and 4.

Add the correct end punctuation for this sentence.

Have you heard the new school song yet

In each pair, circle the word that is spelled correctly.

floating, floting
husband, huzband
thunder, thundre

Fun Math

Name: _____

To celebrate Read a Book Month the Mountain Springs town library is giving a bookmark to everyone who reads at least five books during December. The bookmarks cost seven cents each. The library decided to buy 250 bookmarks. How much did the bookmarks cost in all?

It is so obvious that Sarah has a big heart. Yesterday she baked some brownies for her grandfather. She gave him 11 brownies, and then ate 4 of the remaining brownies. Let n represent the number of brownies she baked. Write an expression using n showing this.
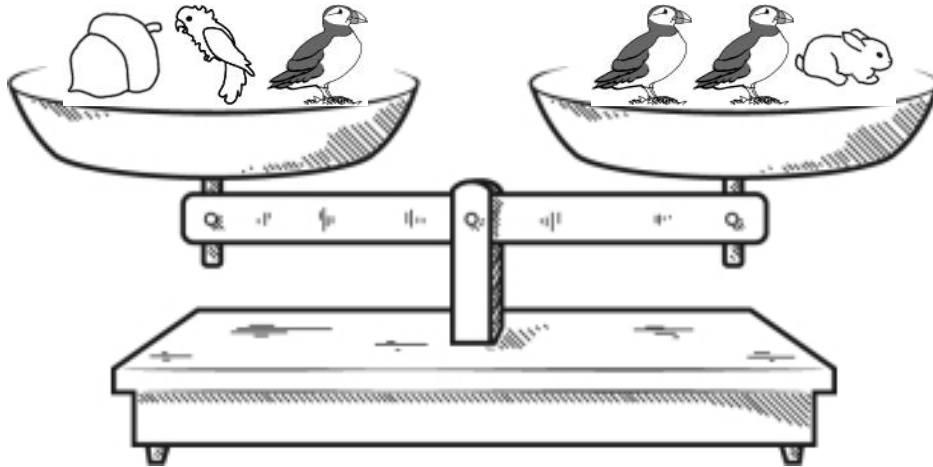
Hunter built a reading loft in his room. The floor of the loft was 6.2 feet long and 6.5 feet wide. What was the perimeter of the loft?

The ugly yellow truck uses a lot of gas now. It used 24 gallons of gas on its last trip. If the cost of gas is $1.79 per gallon, how much did the gas cost for the truck's last trip?

During Be Kind to Humankind Week the students at Midvale Elementary School gave their change to Habitat for Humanity. If an average of $145 was donated each day, how much money did the students give in 5 days?

Max gathered some flowers into bouquets for the wedding. There were 5 flowers in each bouquet. He made 22 bouquets for the wedding. How many flowers did he use?

Fun Math

Name: _____

---

acorn parrot puffin **<** puffin puffin rabbit	puffin rabbit **=** acorn parrot
True ☐ False ☐	True ☐ False ☐

rabbit puffin puffin **<** acorn parrot	puffin rabbit **>** acorn parrot
True ☐ False ☐	True ☐ False ☐

parrot puffin acorn **>** puffin rabbit	puffin puffin rabbit **=** acorn parrot puffin
True ☐ False ☐	True ☐ False ☐

puffin puffin rabbit brush brush brush **=** acorn parrot puffin rabbit rabbit
True ☐   False ☐
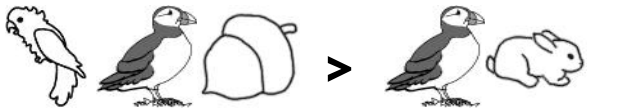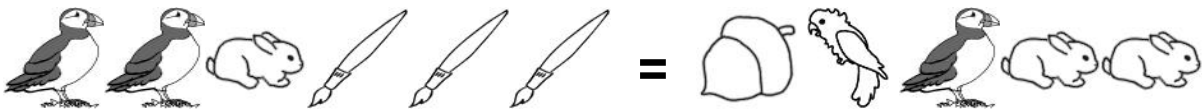
puffin puffin rabbit puffin **=** acorn parrot puffin puffin
True ☐   False ☐

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

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

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

(word root **enni** can mean **year**   bicentennial, centennial, perennial)

Name: _____

Hunter made cookies for Remembrance Day. He made 2 $\frac{1}{3}$ dozen chocolate cookies, 1 dozen peanut cookies, and 1 $\frac{1}{2}$ dozen oatmeal cookies. If he puts the same number of each cookie in each bag and has no cookies left over, what is the largest number of bags he can fill?

According to the polar bear census taken in the Alaskan Native Wildlife Refuge, there were 35 polar bears born last month. Of that number, 21 were female and the rest were male. What is the ratio of females to males? (Express your answer as a fraction in lowest terms.)

Gavin was having so much fun making cupcakes for his class. He made $2\frac{2}{6}$ dozen of them! But there are only 18 kids in his class. Luckily everyone ate one cupcake except for Anne. How many cupcakes are left over?

```
  4 . 8 6
+ 9 . 2 3
---------
```

14.7 - 1.19 =

0.87 + 9.4 =