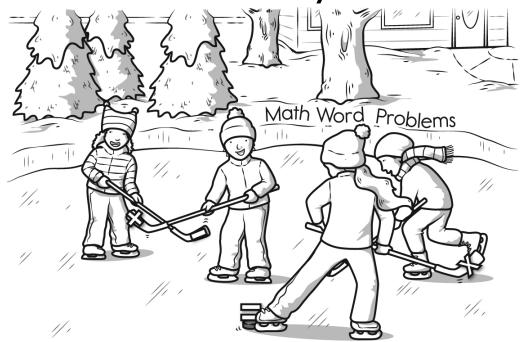
## MONTHLY MATH CHALLENGE

### Homework

**February** 



My Name: Find a helper. page 34 page 10 page 22 Do all of these. page 35 page 11 page 23 but skip 2 pages: He/she helped by checking my work. page 12 page 24 page 13 page 25 page 1 page 14 page 26 page 2 page 15 page 27 page 3 page 28 page 16 page 4 Sixth page 5 page 17 page 29 Grade page 18 page 30 page 6 page 31 page 19 page 7 page 32 page 8 page 20 page 21 page 33 page 9

edhelper.com/math\_grade6.htm

Hand in by February 28.

Feel free to hand in early!

Can you get three in a row?

In Can You get four in a row?!

Bakery and Mini Games

Score Keeper

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

Day played:	Score:	On your computer: edHelper.com/math-games.htm
		Put a star next to your <b>best</b> score.
Can you draw the In a Row robot?	How did you do playing the	

Rate your performance!



End of month score:

edHelper.com/math-games.htm

Great

	I did page 2	I decided to skip this page edHelper
Name:		•
Robert loves art. He doesn't like to draw or paint. He likes to use scissors.	to tape stuff toge	ether, and he LOVES
"I am what's known as an artissor. It's a fine distinction that Robert says to try to annoy Holly.	ıt is much preferi	red over mere artists,"
"That's not a thing! I'm telling," cries Holly.		
Miss Keknew couldn't help herself. "Yes, that's not really a r		
"It is!" Robert said, as he cut and made 24 squares of pape on each side.	er. Each piece w	as so tiny, only 2 cm
"I will now make a rectangle by arranging these pieces of	f paper together	, without overlapping.
But not just any rectangle; this will be the biggest possible using these 24 pieces of paper."		
If Robert does what he says, what is the perimeter of the	rectangle he mo	akes?
And by the way, if you showed a picture of it, that wou	lld be cool, too!	

Name:	I did page 3 I decided to skip this pa
Coach Dave is proud of his hockey team. They had a finals to a really good team. He wants to give his best players scored during the season.	,
Jack played 15 games, scored 12 goals, had 6 assists, an box.	nd spent 22 minutes in the penalty
Bob played 13 games, scored 8 goals, had 10 assists, and Arnold played 16 games, scored 2 goals, had 20 assists, box.	• • • • • • • • • • • • • • • • • • • •
Anna played 14 games, scored 3 goals, had 9 assists, an box. She was the only girl on the team.	nd spent 18 minutes in the penalty
Based only on the data, who should get the trophy? Sh	now how you decided.
Jack's dad said, "I think Charlie is probably our MVP."	
Charlie did not score this season. How could he possible	ly be the most valuable player?

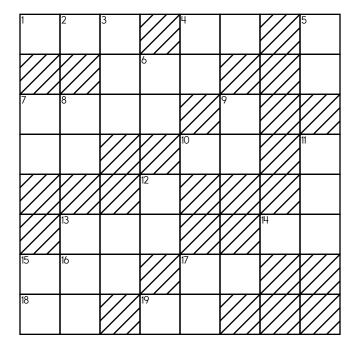
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, ,	edHelper	

### **ACROSS**

- 4. Five more than 10-Across
- 6. Six less than 19-Across
- 10. Six times 8-Down
- 12. Four more than 2-Down
- 13. 10-Across plus 17-Across
- 14. One less than 4-Down
- 16. 8-Down plus 10-Across
- 17. Nickels in four dollars
- 18. One-third of 6-Across
- 19. Five less than 17-Across

#### **DOWN**

- 1. One-eighth of 5-Down
- 2. One-fifth of 8-Down
- 3. 19-Across plus 6-Across
- 4. Two less than 7-Down
- 5. Two more than 16-Across
- 6. Three less than 6-Across
- 7. Nine less than 17-Across
- 8. One-eighth of 17-Across
- 9. Three times 8-Down
- 11. Four more than 3-Down
- 15. Six more than 6-Down



Ava and April are playing a number game.
Ava says 48. April replies that the answer is 6.
Ava says 64. April replies that the answer is 8.
Ava says 16. April replies that the answer is 2.
Ava says 128. April replies that the answer is 16.
Ava says 40. April is thinking. What number should April reply with?

3 2 - 1 5 60 ÷ 6 =

25 +22

ame:				I di	d page 5	I de	ecided to skip this pag edHelper
Complete each pattern. Write what	t the ru	ule is. I	HINT:	— The first	three n	umbers i	in each
pattern are random numbers.							
12.5, 25.1,	6.5. 4 <sup>1</sup>	<u> </u>	5.7. 12	6.3. 24	<u> </u>		
448.1, 820.5,							
				<b>,</b> ,		-	
2.5, 7.1,	9.4, 19	9, 35.	5, 63.	.9, 118.4	•		
217.8, 400.1,	736.3	, 1354	.2, _	,			
Complete each pattern. Write what the r	ule is.						
		136	119	]			
		150		_			
			00	<u> </u>			
	51	34					
	736.3						

What number multiplied by -12 results in a product of -48? Write the number that when multiplied by 7 is -49.

The diameter of a circle is 1,262 cm. What is the radius of this circle?

It was 8 degrees above zero in the morning. By afternoon the temperature rose 15 degrees. How warm was it? How many centimeters in 5.8 meters?

$$1 \text{ kg} = 1,000 \text{ g}$$

$$7 \times 8 =$$

Rose rolls a die. What is the chance of her rolling a 1?

Circle all of the numbers that are greater than 6.9.

$$6\frac{1}{3}$$

6.170

6.0160

6.10

6.015

Round the decimal 0.475 to the nearest hundredth.

Round 84,290 to the nearest hundred.

35, 42, 49, 56, 63,

\_\_\_\_, 77, 84

Circle the three numbers whose product equals 770.

H, M, J, P, L, \_\_\_\_,

Round 7,505 to the nearest thousand.

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Sixth Grade

	I did page 8 I decided to skip this page edHelper			
Name:				
On the collectibles feed it said that 2000 called and asked for their collectible mini zappers back. But Hannah and Wendy ignored the calls. They love collecting these. Hannah has 5q of them. Wendy	Jessica has 13 sweaters and 6 dresses. How many pieces of clothing does Jessica have?			
doesn't have any, so Hannah gave her half of hers. How many mini zappers does Wendy now have?	Erin has 13 sweaters and t dresses. How many pieces of clothing does Erin have?			
	If t is equal to nine, then who has more pieces of clothing?			
	Maria has a total of x + 2 pieces of clothing. If x were 20, then Maria would have 20 + 2 = 22 pieces of clothing. But x is not 20. It is fifteen. How many pieces of clothing does Maria have?			
On the planet Zoroo it costs B dollars for a Zoomer. A Zoomer is a type of car. This month, Maria sold 96 Zoomers. How much money did Maria get?	Jason likes to collect dimes. He doesn't like nickels, quarters, and certainly not pennies. Only dimes! He has v dimes older than 1987. He also has 1,793 dimes minted from 1987 until 2008. This month he added 39 dimes older than 1987 and 172 dimes from 1987 until 2008. How many dimes for each group of years does Jason have now?			
Amy has t squishies. She gave 5 squishies to Erin. How many squishies does Amy have left?				

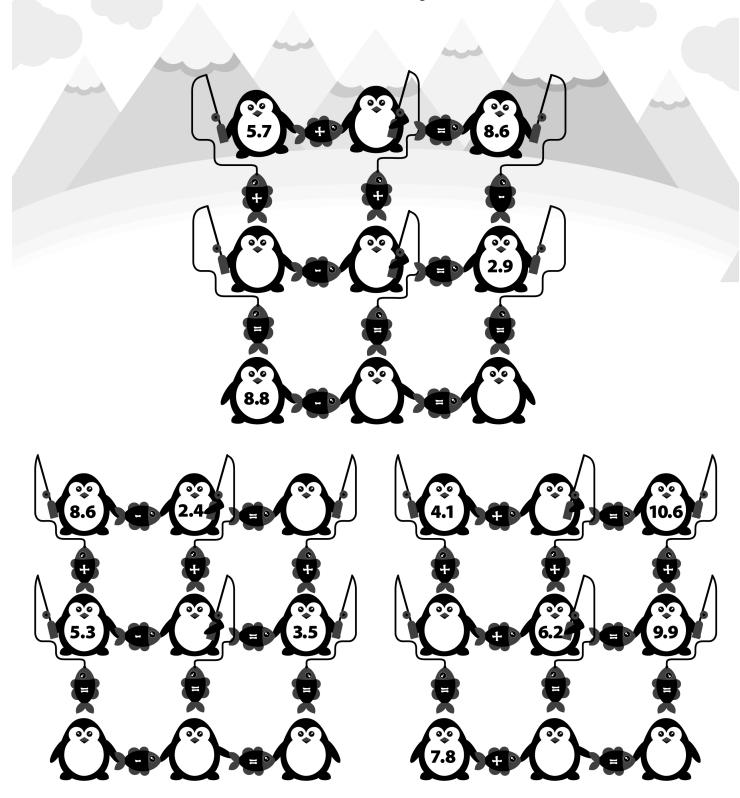
	I did page 9 I decided to skip this page edHelper
Name:	
April likes to write in code. In her notebook she wrote that the password to play her favorite game is $\frac{7q}{9}$ .	Jenna has a lot of money. She has 27t dollars. Amanda only has 14 dollars. How much more money does Jenna have? Well, it's (27t - 14) if you need to know!  Pam has 81 dollars. Would you believe that Jenna still has more money than Pam? How much more money does Jenna have than Pam?
If you know that the value of $q$ is 45, then what is	
the password?	
The secret code is: $2m + \frac{8m}{7}$ $m = 7$ What is the secret code?	Emily went to the store to get a new phone because her phone broke. Don't ask how! Let's just say water was involved. She has t dollars that she hopes is enough to buy a replacement phone. After she gives the cashier her t dollars, the cashier says that is too much. She was given \$20 back. How much did the phone cost?

Name:	I did page 10 I decided to skip this page 10 edHelper
Coach Dave is proud of his hockey team. They had a great really good team.  Coach Dave wants to give his best player a trophy. Only Jack played 15 games, scored 12 goals, had 6 assists, and Bob played 13 games, scored 8 goals, had 10 assists, and s Arnold played 16 games, scored 2 goals, had 20 assists, and Anna played 14 games, scored 3 goals, had 9 assists, and She was the only girl on the team.  Help Coach Dave decide who most deserves the trophy	y 4 players scored during the season. I spent 22 minutes in the penalty box. spent 10 minutes in the penalty box. and spent 43 minutes in the penalty box. I spent 18 minutes in the penalty box.
Show your work.	

I did page 11	I decided to skip this page
	eaHeiner

# PENGUIN PARTY

**Directions:** Write down the missing decimal numbers.



I did page 12 I decided to skip this po
Name:
Amanda lives in Antananarivo where it is currently Sat. at 8:15 p.m. She made a phone call
to Megan who lives in Seoul. It is 2:15 a.m. and Sun. in Seoul. What is the difference in time?
Wendy thinks she has a headache, at least after trying to figure out the unknown number
from the clues. All she was given is that when 20 is subtracted from the unknown number
and then she divides that by 2, it gives the same value as when 51 is subtracted from the
unknown number. What is the unknown number?
Rose is riding her bike and Wendy is riding a scooter around the block. They both started
riding at exactly 2:26. Gavin is lazy. He is just sitting on the porch watching Rose pass by
every 6 minutes and Wendy pass by every 9 minutes. At what time will Gavin see them
pass by at the same time?

	I did page 13	I decided to skip this page edHelper
Name:	_	
Jacob and Jenna started a band. Jenna plays the harp and Sometimes Hannah comes to sing, and today is one of those everyone from their school to the show. It was a hit! They could barely fit everyone in the garage. Hunter let everyone in at the door. The garage door, that is counting. It know there were definitely more girls than boys. I'd say a Hunter pointed out. "Seems like for every 3 boys there were "Wow," said Hannah. "So, um, what was the total attendance et's just assume Hunter's numbers are correct as suspect a question.	e times. In fact, is! Of course, he about 10 more g e 5 girls." e?"	they invited e didn't do very well girls than boys,"
Show your work.		

$$8.2207 \times 10^2 =$$

$$29 \frac{1}{6}, \quad 28 \frac{23}{30}, \quad 26 \frac{14}{15},$$

$$26 \frac{8}{15}, \quad 24 \frac{7}{10}, \quad 24 \frac{3}{10},$$

$$22 \frac{7}{15}, \quad 22 \frac{1}{15}, \quad 20 \frac{7}{30},$$

$$19 \frac{5}{6}, \quad ----, \quad 17 \frac{3}{5}$$

What is the greatest common factor of the numbers 96 and 108?

What is the area of a rectangle with a length of 48 centimeters and a width that is  $\frac{1}{4}$  the length?

If t = 8 and w = -29 then what is 12t - 9w - 3w = ?

(5,764,801), (823,543),  
(117,649), \_\_\_\_,  
(2,401), (343), (49),  
(7), (1), 
$$\frac{1}{7}$$

Rewrite as an algebraic expression or equation.

Add 22 to the product of 6 and t

The unknown value x is a multiple of 5, is greater than 227, and it is divisible by 17. What can be the lowest possible value of x?

edhelper.com/math\_grade6.htm

Sixth Grade

$$9 \times 9 \times 9 \times 9 \times 9 = Z^{y}$$

What is the value of Z and y?

The letter V has an unknown value. If you multiply V by twelve, the product is four. What value does V have?

$$0.9 (0.6 (0.9 \times 7)) =$$

Rewrite 
$$\frac{9}{100}$$
 as a decimal.

Each side of a regular pentagon is 34.3 centimeters. What is the perimeter?

$$8 \times 8 = x^2$$

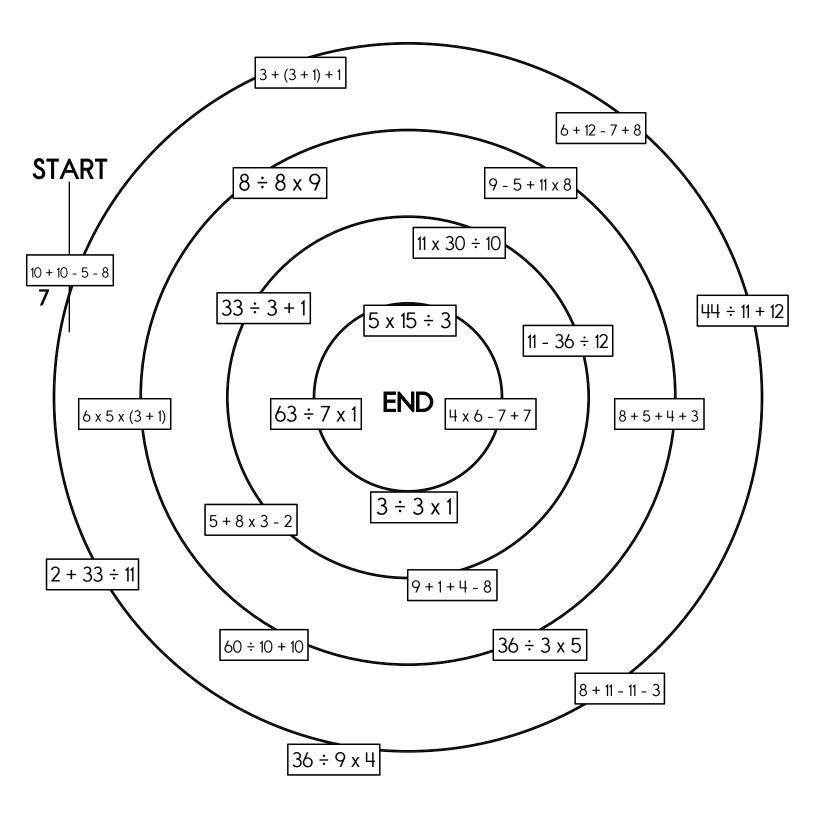
What is the value of x?

Circle the greatest amount: 12% 0.21

	I did page 16	I decided to skip this pag
Name:		eurierper
"It's called the phone challenge, and you can make big but It sounded cheesy to Emily. But she decided to play along. disinterested. She had better things to do. Like play on her "Well, if you give up your phone, I will give you \$1.25," Emily "Not gonna happen," Emily quickly replied. "I'm not done yet, Emily," her mom added. "For each day you a week you will get \$2.75 for the day and have a total of This got Emily's attention. She is trying to save up for a car. only, say, 5 or 6 more years.  If she gives up her phone, how much will she have, in total	. "Yeah, mom," she phone! y's mom added. you don't play I vof \$14." . After all, she wil	ne said to try to sound will add a quarter. So Il be able to drive in
Show your work.		

		I did page 17	I decided to skip this page edHelper
Name:			
Draw a line from STA	ART to END.		
27	60	25	
<del></del> _			

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



$$16 - \frac{2}{5} - \frac{1}{3} =$$

Write the reciprocal.

Write the reciprocal.

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

$$\frac{7}{8}$$
 x  $\frac{2}{3}$  =

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

$$\frac{72}{16} =$$

$$\frac{63}{12} =$$

$$\frac{63}{28} =$$

$$\frac{1}{3} \div 8 =$$

$$6\frac{4}{7}$$
 $8\frac{1}{7}$ 
 $+ 3\frac{1}{7}$ 

Write the reciprocal.

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

I did page 19	I decided to skip this pagedHelper				
One large can of jelly beans has 6 times the number of jelly beans in it than a smaller can of jelly beans. The number of beans in the large can multiplied by the number of beans in the smaller can is 54. Arnold took the jelly beans from the smaller can and put them all into the larger can. How many jelly beans are now in the larger can?					
1	jelly beans in it tho number of beans i				

			I did page 20	I decided to skip this pagedHelper
Name:			<u> </u>	
Erin and Ava are spending the beach. Today they are called Shell Seekers. The spi game has six sections labele and 30. Write the probabilit that Erin will spin a number	playing a game nner for the ed 5, 10, 15, 20, 25, y as a fraction	52 said the equal to 3 3.1416. Eigh What is the	at pi is equal to .14, and 12 said teen said that	8th grade students, 22/7, 38 said pi is that pi is equal to they had no idea. uency of students lue of pi?
Rewrite this mixed numbe	i as air improper in	action.		
In each group, circle the	number that has the	e areatest va	alue and nut a	sauare around
the number that has the l		e greatest ve	ande, di la pai a	
71	7 <sup>3</sup>	<b>7</b> <sup>5</sup>		
66	5¹	6 <sup>2</sup>		

I did page 21 I decided to skip this pa edHelper
Sammy Shark bought three programs for the floor show for \$24.6. If his brother Sal bought six programs at the same price per program, what would the total cost be?
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?
Connor added the number of edges on a triangular prism to the number of vertices on a cube. What was the sum?

П	1
I did page 22	I decided to skip this page
	edHelper

Cross off the number that does NOT belong.

$$15\frac{25}{50}$$
,  $16$ ,  $16\frac{10}{50}$ ,  $16\frac{35}{50}$ ,  $16\frac{45}{50}$ ,  $17\frac{20}{50}$ ,  $17\frac{30}{50}$ ,  $17\frac{33}{50}$ ,  $18\frac{5}{50}$ ,  $18\frac{15}{50}$ ,  $18\frac{40}{50}$ ,  $19$ ,  $19\frac{25}{50}$ 

Why does \_\_\_\_\_ not belong in the pattern?

Cross off the number that does NOT belong.

$$\frac{1}{27}$$
,  $\frac{1}{9}$ ,  $\frac{1}{3}$ , (1), (3), (9), (27), (70), (81), (243), (729)

Why does \_\_\_\_\_ not belong in the pattern?

Name:	I did page 23	I decided to skip this page edHelper
Write your own math problem here.		
Ask the person who helped you to try to solve your pr	oblem.	



How many times do you need to spin?

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

Spin fidget spinner. Quick!



How many times do you need to spin?

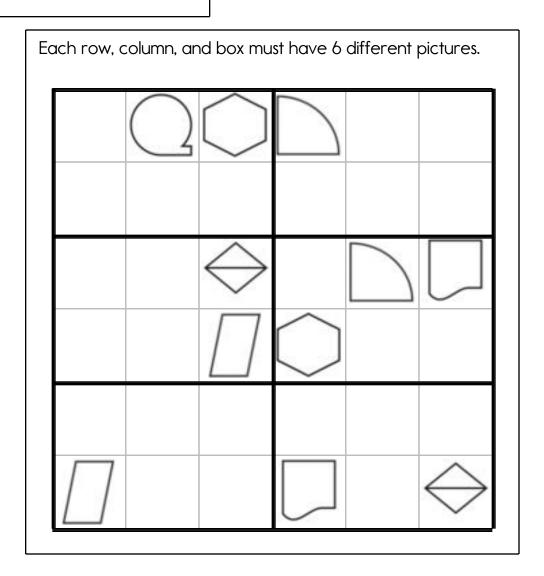
I needed to spin \_\_\_\_\_ time(s) to finish the page.

Spin fidget spinner. Quick!

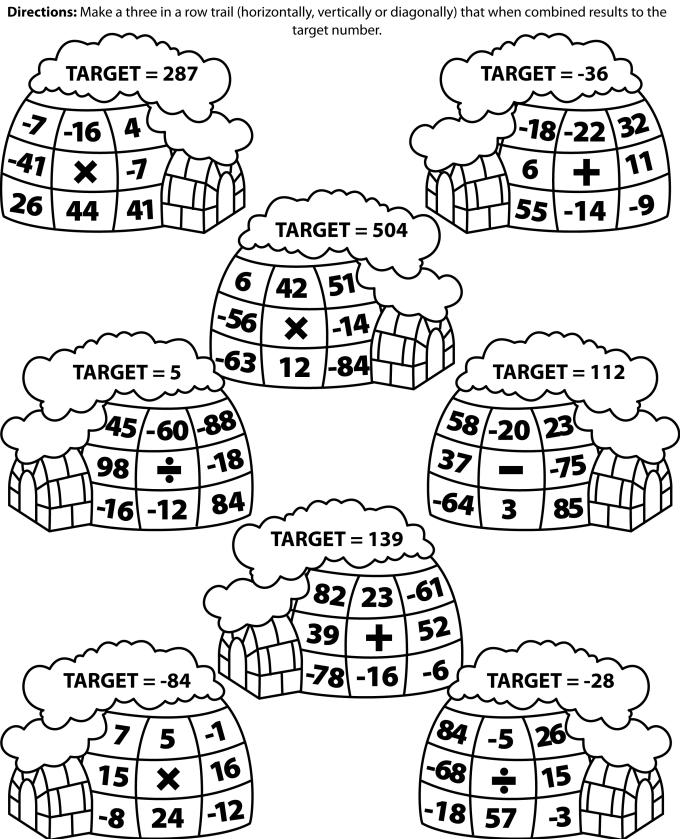
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Each row, column, and box must have the numbers 1 through 6. The first box is done.

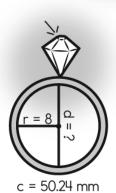
6	4	1			
5	2	3		4	
		4		2	3
	6		3		2



# TIC-TAC-TO







Circumference = 50.24 mm

Radius = 8 mm

Diameter =





Radius = 9 mm

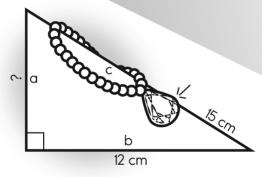
Diameter = 18 mm



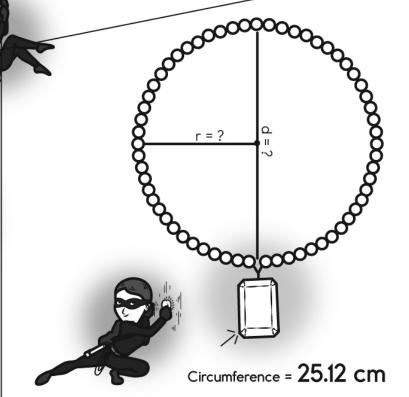
RIGHT TRIANGLES -  $a^2 + b^2 = c^2$ 

CIRCLES - 
$$C = 2\pi r$$

$$\pi = 3.14$$



a =



Radius =

Diameter =

What kind of angle has a measure of between  $0^{\circ}$  and  $90^{\circ}$ ?

Sketch an obtuse angle named  $\angle$  EFG.

An angle measures 70°. What would you call this angle?

There is a certain book at the school library that has four hundred fifty-three pages. If the probability that you will open the book to any page at random and find a picture is 12%, how many pages in the book have pictures on them? Assume that the pictures are randomly distributed throughout the book.

Coach Jones stresses the importance of free throws during basketball practice. The day before each game, everyone on the team shoots 20 free throws, and he charts their progress as the season goes by. If Kevin made 3 out of 20 on the first day of practice, and most recently he made 13 out of 20, by what percent has his free throw completion rate changed? Round your answer to the nearest hundredth of a percent.

Emma is playing a game using a single die. The die is a six-sided cube with each face having a number from 1-6 on it. For each roll resulting in a number greater than five she gets a point, and for each roll resulting in a number less than five she loses a point. She rolls the die on her next turn and says, "Oh, I guess that means I neither lose nor win any points on this turn." What number must have come up on the die?

The ratio of indoor basketballs to outdoor basketballs at the Megalopolis recreation center is 6:3. If the rec center has 56 basketballs, how many of them are indoor basketballs?

A scientist counted birds in a cornfield. He counted five crows, eight jays, and three hawks. What was the ratio of jays to hawks?

The local store is having a sale. All floopers are 38% off. If a flooper normally costs \$10.79 plus 5% sales tax, how much will it cost to buy a Flooper during the sale?

Posters for Children's Book Week come in packages of 30. If each package costs \$8.26, how much will be spent on posters?

Polar bears are very large animals. An adult female polar bear is usually about 660 pounds. An adult male can grow to 18 feet tall and weigh up to 1,320 pounds! What is the difference between the two weights?

A 9-inch gingerbread pan holds  $5\frac{3}{4}$  cups of batter. Amanda has  $6\frac{5}{8}$  cups of batter. How much batter will be left after she fills the 9-inch pan?

0.4(0.7(0.4 + 2)) =

What is the greatest common factor of the numbers 45 and 30?

What is the remainder of 46 divided by 8?

In the fourth grade, each student read one poem.

Of the students,  $\frac{1}{5}$  read

"The River,"  $\frac{1}{5}$  read

"Storm Clouds," and  $\frac{3}{5}$  read "First Spring." Which poem was read by the most students?

If 7 of 20 four-square courts had blue lines and the rest had white lines, what percent of the courts had white lines?

Jenna ran at a steady pace of 5.5 miles per hour around the circular track behind her apartment. It took her 2.8 minutes to make one lap around the track. To the nearest hundredth of a mile, what was the diameter of the track?

Mrs. Lee, the first grade teacher, liked to surprise her students. One day she brought her pet boa constrictor to school. Another day she came dressed up like Mary Poppins. Everyone smiled and thought, "Well, she's just funny that way." In her 10 years of teaching Mrs. Lee has taught 224 first graders. At that rate, if she teaches for 26 years in all, how many students will she have taught?

There are approximately 178,000 speakers of the Navajo language in the United States and approximately 204,000 speakers of other Native American languages. Write the ratio of Navajo speakers to speakers of other Native American languages as a fraction in lowest terms.

In what quadrant would you find the point (-7, 9)?

What is the remainder of 73 divided by 14?

Simplify.

 $\frac{4,200}{6,300} =$ 

The cost of a turkey is \$1.15 per pound. Write an equation for this function, and tell what each variable represents. It takes one hundred fifty pounds of milk to make fifteen pounds of cheese. At that rate, how much milk does it take to make nine ounces of cheese? Maria was bored. She found her little sister and offered to read a book to her. She read to her sister for an hour and 35 minutes. If Maria started reading at 3:24 p.m., what time did she stop reading?

$$|-8| + f = 13$$

f =

$$|-9| - x = 7$$

x =

If y = -7 and p = 17 then what is 12y - 8p + 2p = ?

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Sixth Grade

Find 72% of 114.

Change 2% to a decimal.

Find 80% of 365.

13 is what percent of 52?

Change 0.02 to a percent.

Find 9% of 90.

Change  $\frac{93}{100}$  to a percent.

Change  $\frac{8}{25}$  to a decimal.

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

Change to a percent and then to a fraction:

Change to percents.

$$\frac{10}{100} =$$

$$\frac{27}{100} =$$

$$\frac{38}{100}$$
 =

Change to percents.

Sixty-eight more than eight times a number is greater than seven times the number. What numbers satisfy this inequality? Natalie is three years younger than Andrew. The sum of the ages of Andrew and Natalie is fifteen. How old is Andrew? The measures of two angles in a complementary triangle are in the ratio of 1:4. What is the measure of the smaller angle?

I did page 34

Hannah left early in the morning for a long bike ride. She reached the half point of her ride about two hundred ninety minutes later. She calculated her speed was six mph for the first half of the trip. If she rides the second half at a rate that is six mph more, how much quicker will the second half be (in minutes)?

Four times Brandon's age is one hundred four more than twice Morgan's age. The sum of their ages is fifty. How old is Brandon? A rectangle, whose perimeter is one hundred twenty-two feet, has a width that is five feet shorter than its length. What are the dimensions of the rectangle?

Alex was writing a report on the history of the National Day of Prayer. His search engine listed 10,501 websites with information about the day. If it takes him an average of 4 minutes to look at the information in each website, how long would it take him to look at 106 of these 10,501 websites? (Express your answer in hours and minutes.)

Alex must fill out a practice form each week for band class. There is a place for each day of the week (including weekends) and a space to write the practice time for that day. Last week's form had the following data on it: Mon-30 min, Tue-40 min, Wed-0 min, Thu-50 min, Fri-0 min, Sat-70 min, Sun-60 min. What was the average number of minutes he practiced per day?

$$3 + (7 + 2)$$

$$(8 + 12) + 6 = 2(v + 10)$$

What is the value of v?

A, F, K, P, \_\_\_\_, Z

Holly's recipe for apple fritters makes sixteen fritters and uses half of a cup of milk. Holly wants to make four fritters. How much milk will she need? If you count by twos, you miss it by 1. If you count by fives, you miss it by the same amount. It is greater than 30. What is the smallest number it could be?

Beatrix Potter was born in 1866. Write the prime factorization of the year of her birth.

$$\frac{72}{96} =$$

27 - † + 11 = 18 What is the value of t?



