

# Future 7<sup>th</sup> Graders Summer Homework Packet

Due: Thursday, September 4th

Name:	
2 401.4601	

## Welcome to Seventh Grade!

Congratulations! You are ready for seventh grade! This packet has some books for you to read as well as a few activities. The goal is to enhance the skills you learned throughout the year and to prepare you for the seventh grade curriculum.

It's important to continue reading for fun. You often read to learn new things, which helps you build upon what you already know by reading more. Reading for fun helps you do that. It helps you strengthen vocabulary, fluency, and comprehension. It also empowers you to

learn many lessons about life.

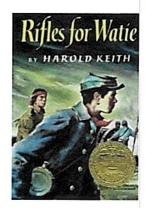
Make sure you take some time to show your parents what you're reading. Maybe your parents will read the books with you. It can be fun to dialogue together about what you're reading. Don't forget that it's important to make time to read like you did during the school year with your homework.

Enjoy your summer filled with many experiences with your families.

#### Inside this issue:

Assignment #1	
What You Need to Know	2
Assignment #2	3





## Assignment #1

Read Rifles for Watie by Harold Keith. The focus is Jefferson Davis Bussey's development from a naïve sixteenyear-old into a mature gentleman and soldier. Explain how Jeff shows his maturity by giving three examples of the traits to the right. For each example write complete sentences which provide details

from the novel. Be sure to number each example for each category.

- Courage
- Initiative
- Self-confidence
- Making good decisions

#### What You Need to Know:

Jefferson Bussey is sixteen when the Civil War breaks out. His desire is to contribute to the honor and glory of war by fighting as a soldier in the Union Army. Soon he discovers that war is not all power and success. He experiences starvation, exhaustion, fear, and loss. When Jeff is chosen to infiltrate the enemy as a spy he makes an important

discovery that the Rebels are young men just like him. Later after he has basically served for the Union and Rebel armies, he has information vital to the success of each. The war becomes

more intense and soon he must make an extremely difficult decision. To whom will he show his loyalty?

\*With both armies now at full fire power, he was conscious only of the awful thunder clap of battle. There were no clear thoughts in his head. He thought of victory nor defeat but rather that the end of the world was coming..."

—Harold Keith, Rifles for Watie, Ch. 12

## Assignment #2

Read one book from the Book List and type a 2 page review. The review should be in Calibri (body) 11 font. It should include your first and last name at the bottom of 2<sup>nd</sup> sheet on the right side of the paper.

## Beginning 7th Grade Reading List

You are required to choose one book from this list to complete Assignment #2

Absolutely Normal Chaos by Sharon Creech

A Connecticut Yankee in King Arthur's Court by Mark Twain

After Many Days by L.M. Montgomery

A Lantern in Her Hand by Bess Streeter Aldrich

All Creatures Great and Small by James Herriott

Almost Astronauts by Tanya Lee Stone

Around the World in Eighty Days by Jules Verne

Banner in the Sky by James Ramsey Ullman

Charlie Skedaddle by Patricia Beatty

Dead End in Norvelt by Jack Gantos

Death Comes for for the Archbishop by Willa Cather

Earthquake Terror by Peg Kehret

Hana's Suitcase by Karen Levine

Hound of the Baskervilles by Sir Arthur Conan Doyle

Izzy, Willy-Nilly by Cynthia Voigt

Kidnapped by Robert Louis Stevenson

Kira-Kira by Cynthia Kadohata

Maze Runner by James Dashner

Messenger by Lois Lowry

O Pioneers by Willa Cather

Ranger's Apprentice (series) by John Flanagan

Sarah Bishop by Scott O'Dell

Stargirl by Jerry Spinelli

Take Me to the River by Will Hobbs

Tales of Old Time Texas by J. Frank Dobie

The Black Pearl by Scott O'Dell

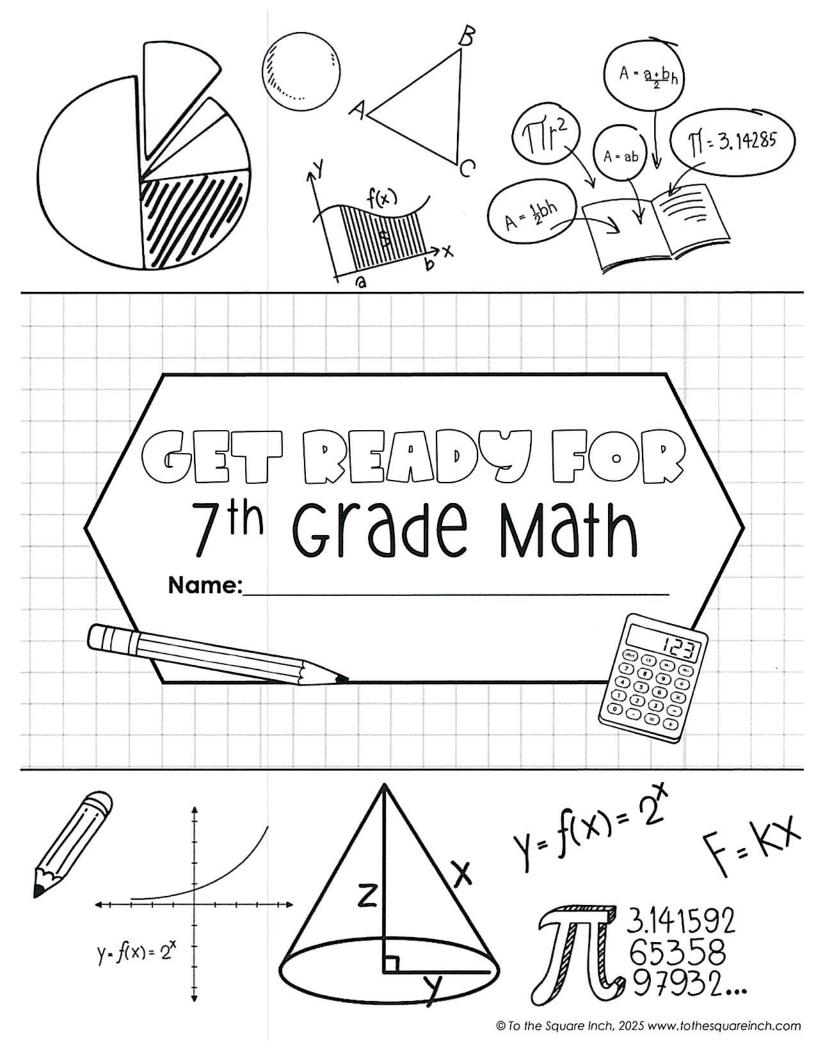
The Kind of Friends We Used to Be by Frances O'Roark Dowell

The Light in the Forest by Conrad Richter

The Virginian by Owen Wister

Total Tragedy of a Girl Named Hamlet by Erin Dionne

True Grit by Charles Portis



Name:		
Name.		

# Percent problems



#### Learning Target:

I can solve real-world percent problems by finding the part, whole, or percent.

MISSING DEDGETT

#### 3 Types of Percent Problems

MISSING DOUGH
"What is% of?"
Write the percent as a fraction over 100

MI	SSING		
"		_% of	what
	num	ber?"	
	te the		
a i	fractio	n over	100
	Pac	}T +	}
	EDG	EUT	7 8

of?"
PART *
PERCENT

#1 What is 10% of 50?	#2 18 is 90% of what number?	#3 45 is what percent of 90?
#4 There are 24 kids in class. 25% of the kids went on the field trip. How many kids went on the field trip?	#5 12 is 30% of what number?	#6 15 is what percent of 60?
#7 What is 45% of 60?	#8 Emma saved \$30, which is 20% of her total savings goal. What is her total savings goal?	#9 Mason made 18 out of 30 basketball shots. What percent did he make?

	E-1000 Proces	
Name:	Date:	
38VV-59VV-79VV-79VV-79VV-7	THE CHARLES AND A CONTINUE OF THE CONTINUE OF	

# TODIC I Percent problems

#### Answer each question:

	. 0. 00111 1 1 0 1			
What is 25% of 60?	36 is what percent of 120?	What is 40% of 90?	A shirt originally cost \$60 but was discounted by \$15. What percent discount is that?	What is 90% of 200?
30 is what percent of 150?	What is 75% of 80?	Sophia gave 20% of her allowance to charity. If she had \$25, how much did she donate?	9 is what percent of 12?	What is 60% of 120?
Liam scored 85% on a test with 40 questions. How many questions did he get right?	20 is 25% of what number?	16 is 40% of what number?	Olivia read 50 pages out of her 90-page book. What percent of the book did she read?	20 is what percent of 80?
Of the 25 students in a class, 10 brought in their permission slips. What percent is that?	A video game is 70% downloaded. If the full game is 80 GB, how many GB have been downloaded?	63 is 70% of what number?	At a party, 60% of the 50 guests brought a gift. How many people brought gifts?	A toy costs \$12 after a 25% discount. What was the original price?
A store sold 72 apples, which was 80% of its stock. How many apples did the store have to start?	What is 35% of 65?	James earned 10% interest and made \$50. How much money did he invest?	9 is 15% of what number?	25 is 50% of what number?

Manage	
Name:	

# Simplifying Algebraic Expressions



Learning Target:

I can simplify algebraic expressions by combining like terms and using the distributive property.

simplifying an expression means rewriting it in a shorter or more efficient way without changing its value.



$$a(b+c) = ab + ac$$

$$a(b-c) = ab - ac$$

$$\begin{array}{c}
x \\
3(5a + 2b) \\
3 \times 5a + 3 \times 2b \\
15a + 6b
\end{array}$$

# 

LIKE TERMS: Terms that have the same VARIABLE raised to the same POWER Terms take the OPERATION symbol directly to the left of the coefficient.

$$3x + 5y + x - 2y$$
  
 $3x + x + 5y - 2y$   
 $4x + 3y$ 

#### Simplify each expression:

#1 $3x + 5x$	#2 5(a + 2)	#3 $7x + 4 + 2x + 6$
#4 $10m + 2n + 4n + 6m + 8$	#5 7(t + 1)	#6 $6 + 2t + 4 + 5t$
4(2x-7)	9(2w + 4x)	#9 $4x + 2y - y - x + 4$

2002		
Name:		
NUITE.		

Date:

# TODIC D:

#### Simplifying Algebraic Expressions

#### Simplify each expression:

	EVALCOSIOLIS			
4x + 7x	3a + 2 + 5a	2x + 3y + 5x	6m + 4 + m + 2	3(b + 5)
7(2x-3y)	5y + 4y + 6	2a + 3b + a + 5b	4(x - 3)	6(2w + 12)
10 + 4p + 3p + 6	9(3k-2)	2x + 3y + 4x + y	7 + 3b + 5 + 2b	2(8a - 3b)
7(4r - 5s)	3x + 4y + 2x + y	2m + 3(m + 1)	4 + 2a + 3 + 5a	3(y + 2) + y
2r + 3s + r + 5s	5 + 3x + 2 + 4x	2(x + 3) + 5	4y + 3y + 6 + 2	x + 3(x + 2)

Name:	
Nulle	

Date:

## TOPIC D: Area of Polygons



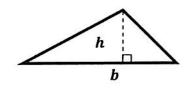
## Learning Target:

I can find the area of parallelograms, triangles, and trapezoids

PARALLELOGRAMS	
h	

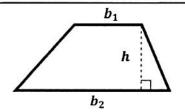
$$A = bh$$





$$A=\frac{1}{2}bh$$

**TRAPEZOIDS** 



$$A = \frac{1}{2}h(b_1 + b_2)$$

## The base and height are always perpendicular (form a right angle)

Find the area of each figure.

#1	4 m	#2	15 m	#3	2 m 3 m
#4	14 m 19 m	#5	Eight 15 cm	#6	11 m 12 m
#7	33 m 21 m 23 m	#8	16 m 5 m	#9	26 m 27 m 20 m

Name:		
Nullic.		

## TODIC D8 Area of Polygons

#### Find the area of each figure:

12 mm	30 m	3 cm 3 cm	8 mm 2 9 mm	Noah is designing a triangular garden with a base of 14 meters and a height of 6 meters. How much space will the garden take up?
4 mm 12 mm	9.5 cm	0.5 M	15 m 18 m	12 m; 8 m
14 cm 28 cm	Sophia is painting a parallelogram-shaped wall that is 12 feet wide and 8 feet tall. How much area will she cover with paint?	8 m 5 m 6 m	18 m	9 E
9 cm	25 mm	0.1 m	7 m 10 m 17 m 28 m	22 cm 10 cm 16 cm
2.3 m 5.7 m	12 m 10 m	Aiden is creating a trapezoid-shaped banner. The top is 5 feet, the bottom is 9 feet, and the height is 4 feet. What is the area of the banner?	The triangular window in Isabella's attic has a base of 10 feet and a height of 4 feet. What is the area of the window?	10 m/ 12 m

Name:	Date:	

# Ratios & Unit Rate



#### Learning Target:

I can write ratios and solve unit rate problems in real-world contexts.

#### EQUIVALENT DATIOS

To find equivalent ratios, multiply or divide both parts of the ratio by the same number.

Are 4.6 and 2.3 equivalent?



Yes, they are equivalent

#### COLL BOLE

A unit rate compares a quantity to 1 unit. Divide to find an equivalent rate that compares to 1.

If 3 Cakes Cost \$30, how much does 1 cake cost?

	CAKE	\$	
÷3 (-	3	30	
.0	1	10	٠٠٠ رـــ

\$10 for 1 cake

#1 A recipe Amelia uses calls
for 2 cups of flour for every 5
cups of sugar. How much flour
does she need if she uses 15
cups of sugar?

#2 Elijah bought 5 movie tickets for \$60. What is the cost per ticket?

#3 Charlotte can type 240 words in 4 minutes. How many words can she type per minute?

#4 Oliver drives 120 miles in 3 hours. How many miles does he drive in 5 hours if he keeps the same speed?

#5 Noah can jog 3 miles in 24 minutes. How far can he jog in 40 minutes if he keeps the same pace?

#6 Emma is decorating cupcakes. She uses 6 candies for every 4 cupcakes. How many candies will she need for 12 cupcakes?

#7 Levi spends \$45 on 9 pizzas. How much will 12 pizzas cost? #8 Lucas buys 3 notebooks for \$12. What is the cost of one notebook?

#9 Liam solved 12 math problems in 18 minutes. How many could he solve in 6 minutes at the same rate?

Name:	Date:
italic	Date:

# 了ODDIS Unit Rate>

#### Answer each question.

Ellie reads 6 books for every 3 movies she watches. If she watches 6 movies, how many books will she likely read?	Evelyn recycles 6 plastic bottles for every 10 paper items. How many paper items does she recycle if she collects 24 bottles?	Leo downloaded 60 songs in 5 hours. How many songs did he download per hour?	Maverick painted 3 rooms in 9 hours. How long did it take him to paint one room?	Mia mixes 12 cups of red paint with 8 cups of yellow paint. How many cups of yellow would she need if she uses 18 cups of red to keep the same ratio?
Violet bought 6 notebooks for \$30. How much did each notebook cost?	Aria earned \$72 for 6 hours of tutoring. What is her hourly rate?	Luca solves 8 puzzles for every 12 riddles in a competition. If he solves 16 puzzles, how many riddles should he expect?	Leo runs 3 laps and bikes 9 laps during his workouts. If he runs 6 laps, how many biking laps would match the same routine?	Hudson paid \$36 for 4 movie tickets. What is the cost of one ticket?
Henry trains 3 small dogs and 6 big dogs each day. If he trains 9 small dogs, how many big dogs would that match?	Ezra makes trail mix with 5 scoops of raisins for every 10 scoops of nuts. If he uses 15 scoops of raisins, how many scoops of nuts will he need?	Asher walks 2 dogs for every 5 cats at the animal shelter. How many cats would he be assigned if he walked 6 dogs?	Grayson mowed 5 lawns and earned \$100. How much did he earn per lawn?	Eliana decorates 4 shirts for every 2 hats. How many hats would she decorate if she makes 12 shirts?
Lily bought 8 pencils for \$4. What is the price per pencil?	James bakes cookies using 2 cups of flour for every 5 cups of sugar. How much flour does he need if he uses 15 cups of sugar?	Camila listened to 90 minutes of podcasts in 3 sessions. How long was each session?	Nova read 120 pages in 4 days. How many pages did she read each day?	Luna plants 4 tomato plants for every 6 pepper plants. If she plants 12 tomato plants, how many pepper plants will she need?
Muhammad used 12 gallons of gas to drive 180 miles. How many miles per gallon did he get?	Harper makes fruit punch by mixing 7 cups of water with 3 cups of juice. If she wants to use 21 cups of water, how many cups of juice does she need?		Theodore baked 48 cookies in 6 batches. How many cookies did he bake per batch?	Aurora spends 9 hours studying math for every 6 hours of science. If she studies math for 12 hours, how many hours should she spend on science?

Namo	
Name:	

# SOIVING EQUATIONS



#### Learning Target:

I can solve one-step equations using inverse operations.

TO SOIVE EQUATIONS, USE INVERSE OPERATIONS TO ISOIATE THE VARIABLE.

#### INVERSE OPERATIONS

ADDITION \$\leftrightarrow \text{SUBTRACTION}\$

MULTIPLICATION \$\leftrightarrow \text{DIVISION}\$

$$\begin{array}{r}
 x - 9 = 20 \\
 + 9 + 9
 \end{array}$$

$$x + 2 = 5$$

$$-2 \quad -2$$

$$\frac{x}{5} = 7$$

$$x5 \quad x5$$

$$3x = 18$$

$$\div 3 \quad \div 3$$

$$x = 29$$

$$x = 3$$

$$x = 35$$

$$x = 6$$

#1	x - 5 = 12	#2	5 <i>x</i> = 65	#3	$\frac{x}{4} = 9$
#4	x + 15 = 22	#5	x - 9 = 34	#6	7x = 21
#7	$\frac{x}{9} = 12$	#8	14 = x + 13	#9	12x = 48

# TODIC B8 solving Equations

Solve each equation.

x + 17 = 25	3x = 42	49 = x + 14	x-21=23	x-11=21
$4 = \frac{x}{15}$	85 = 5x	4.5x = 10	72 = 8x	49 = x + 22
x - 1.1 = 1.3	x + 47 = 99	x-13=22	29 = x - 29	125 = 5x
x - 18 = 44	$\frac{1}{2} = x + \frac{1}{8}$	162 = 6x	x - 321 = 110	9x = 108
$x-\frac{1}{3}=\frac{2}{3}$	$\frac{1}{2}x = 9$	5.3 = x - 2.5	543 = x + 212	13x = 325

# SURFACE AREA OF RECHANGUIAN PRISMS



#### Learning Target:

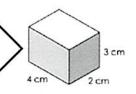
I can find the surface area of a rectangular prism using the formula and by adding the areas of all faces.

#### SURFACE AREA is the total area covering the outside of a 3D shape.

#### TO FIND SYDFAGE ADEA...

Step 1: Find the area of each face.

Step 2: Add all the areas.



Face 1. 4  $2 = 8 \text{ cm}^2$ 

Face 2 :  $2 \times 3 = 6 \text{ cm}^2$ 

Face 3.  $4 \times 3 = 12 \text{ cm}^2$ 

Face 4.  $4 \times 2 = 8 \text{ cm}^2$ 

Face 5.  $2 \times 3 = 6 \text{ cm}^2$ 

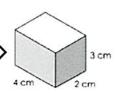
Face 6.  $4 \times 3 = 12 \text{ cm}^2$ 

SURFACE area.  $8+6+12+8+6+12 = 52 \text{ cm}^2$ 

Method 2

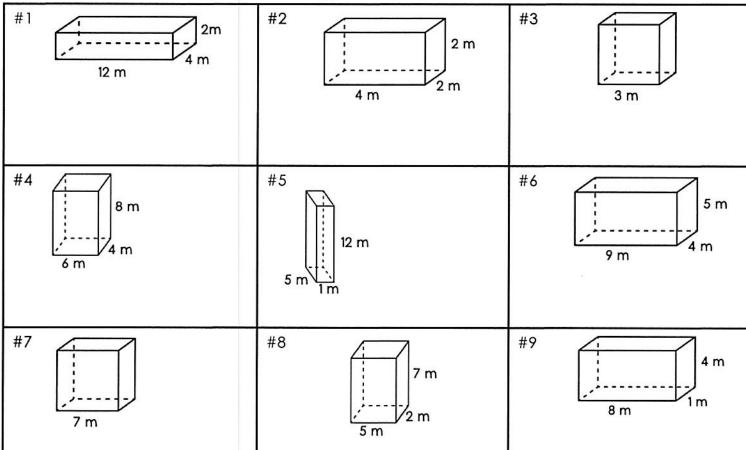
Use the formula:

$$SA = 2lw + 2lh + 2wh$$



 $SA = 2 \times 4 \times 2 + 2 \times 4 \times 3 + 2 \times 2 \times 3$  $SA = 52 \text{ cm}^2$ 

#### Find the surface area of each figure.



Name:	Date:
Nume.	Daic

# Surface Area of Rectangular prisms

## > Find the surface area of each figure:

	prisms	/	io comaco area	or each lighte.
9 m	Ellie built a wooden planter box that is 5 feet long, 2 feet wide, and 1.5 feet tall. What is the total surface area of the outside of the box?	7 m	Ezra is painting a storage chest that measures 8 feet long, 3 feet wide, and 2 feet high. If he wants to paint the entire outside surface, how many square feet will he need to cover?	9 m
Luna wants to cover a storage cube with contact paper. Each side of the cube is 6 inches long. What is the total surface area she needs to cover?	12 m 7 m	Mia is wrapping a rectangular gift box that is 10 cm long, 6 cm wide, and 4 cm high. How much wrapping paper does she need to completely cover the box?	5 m	3 m 1 m
10 m	10 m 4 m	Daniel is building a doghouse shaped like a rectangular prism. It's 6 feet long, 4 feet wide, and 3 feet high. How much wood does he need to cover the outside?	3 m 20 m	4 m 8 m
4 m	Mila is painting a rectangular bookshelf that's 4 feet high, 2 feet wide, and 1 foot deep. She wants to paint every outside surface. What is the total surface area she needs to paint?	15 m 10 m	Gianna is covering a shoebox with decorative paper. The box is 12 inches long, 7 inches wide, and 5 inches tall. How many square inches of paper will she need to cover the entire surface?	5 m
10 m	6 m	Michael has a toy box that is 5 feet long, 3 feet wide, and 2 feet tall. He wants to glue felt to the entire outside of the box. How much felt will he need?	14 m	Asher designed a fish tank that is 12 inches long, 8 inches wide, and 10 inches tall. How many square inches of glass are needed to make the entire tank (not including a lid)?

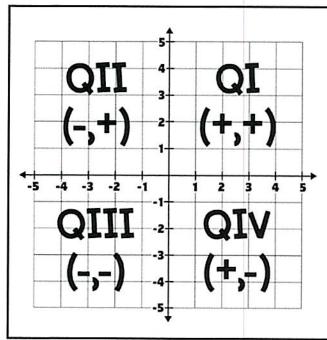
Name:	Date:
	B G 1 G 1

# Graphing Coordinates



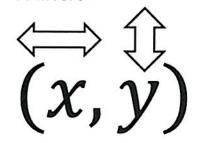
#### Learning Target:

I can plot and identify points on the coordinate plane in all 4 quadrants.



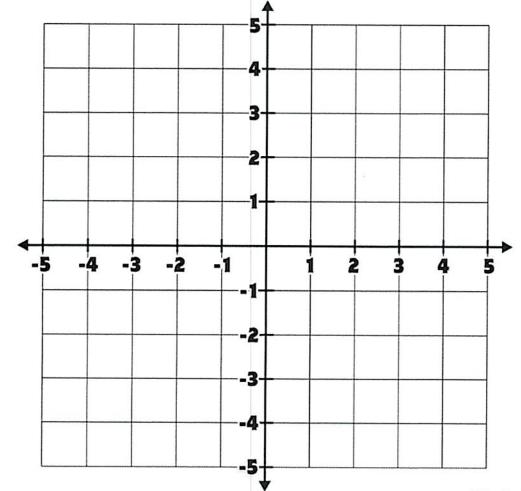
STEP 1. MOVE left or right across the X-axis to the X-coordinate.

STEP 2. Then, move up or down the y-axis to the y-coordinate.



LEFT OR RIGHT THEN UP OR DOWN

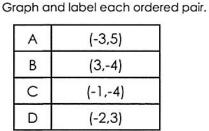
Graph and label each ordered pair.

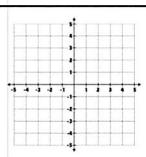


1	(-4,5)	
2	(0,4)	
3	(3,4)	
4	(-2,-3)	
5	(4,-3)	
6	(-5,0)	
7	(-1,-5)	
8	(2,-5)	
9	(3,-2.5)	

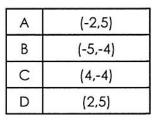
#### TODOS 78 Graphing coordinates

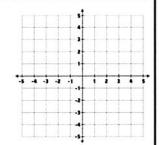
#### MONday





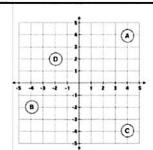
TUESC	TUESday
Graph and label eac	h ordered pair.



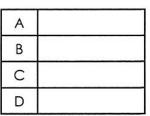


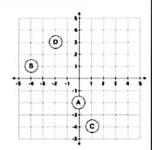
Write the coordinates for each point.

Α	
В	
С	
D	



Write the coordinates for each point.

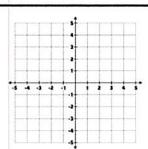




#### wednesday

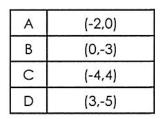
Graph and label each ordered pair.

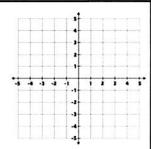
Α	(0,-4)
В	(2,-5)
С	(5,-1)
D	(-4,-5)



Graph and label each ordered pair.

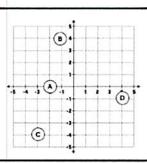
Thursday





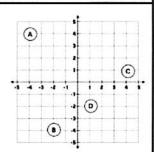
Write the coordinates for each point.

Α	
В	
С	
D	



Write the coordinates for each point.

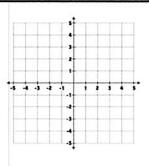
Α	
В	
С	
D	



#### friday

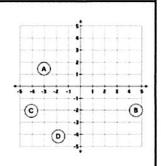
Graph and label each ordered pair.

Α	(-3, -4)
В	(-1.5, 3)
С	(3,0)
D	(0,-5)



Write the coordinates for each point.

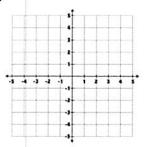
Α	
В	3
С	
D	



## TODOS T8 Graphing coordinates

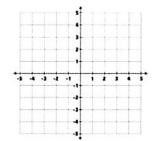
Graph and label each ordered pair.

А	(-3,5)
В	(3,-4)
С	(-1,-4)
D	(-2,3)



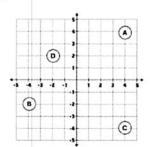
Graph and label each ordered pair.

А	(-2,5)	
В	(-5,-4)	
С	(4,-4)	
D	(2,5)	

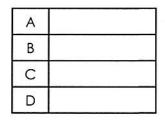


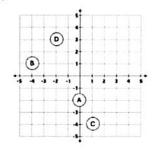
Write the coordinates for each point.

Α	
В	
С	
D	



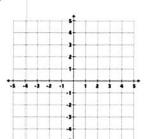
Write the coordinates for each point.



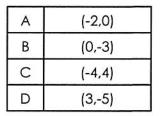


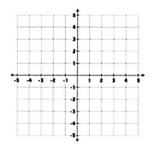
Graph and label each ordered pair.

А	(0,-4)
В	(2,-5)
С	(5,-1)
D	(-4,-5)



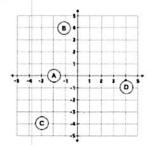
Graph and label each ordered pair.





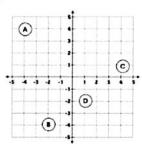
Write the coordinates for each point.

Α	
В	
С	
D	



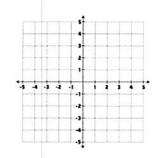
Write the coordinates for each point.

Α	
В	
С	
D	



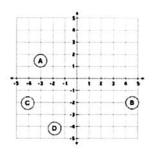
Graph and label each ordered pair.

Α	(-3, -4)
В	(-1.5, 3)
С	(3,0)
D	(0,-5)



Write the coordinates for each point.

А	
В	
С	
D	



Name:	

# Mean, Median, and Mode



#### Learning Target:

I can analyze data sets and find mean, median, and mode.

# MEASURE OF CENTRAL TENDENCY: A SINGLE VALUE that describes the center of a data set

#### MEAN

**Step 1:** Add up all the numbers.

**Step 2:** Divide by the number of numbers.

#### **MEDIAN**

Step 1: Put the numbers in order from least to greatest.
Step 2: Find the middle number.

If there are an even number of numbers, find the mean of the two middle numbers.

#### MODE

Find the number or numbers that occur most often.

There may be more than one mode or no mode.

#1 Find the mean: 19, 46, 32, 43, 49	#2 Find the median: 42, 63, 30, 45, 31	#3 Find the mode: 3, 8, 3, 8, 5, 3, 7, 4
#4 Find the mean: 32, 14, 32, 5, 11, 20, 31	#5 Find the median: 71, 16, 88, 65, 32, 53	#6 Find the mode: green, blue, red, red, green, red, blue, white
#7 Find the mean: 14, 43, 13, 43, 33	#8 Find the median: 13, 14, 10, 9, 15, 20, 5, 34	#9 Find the mode: 6, 4, 4, 2, 2, 3, 6, 4, 3

Name:		
Nume		

# TODIC 38 Mean, Median, and Mode

#### Answer each question:

Find the mode: 7, 8, 6, 7, 4, 8, 6	Find the mean: 36, 21, 30, 16, 1, 26, 57, 60	Find the median: 87, 55, 27, 90, 78, 61, 39	Find the mode: 3, 5, 2, 4, 6, 5, 2, 5, 3, 8	Find the median: 54, 64, 17, 77, 22, 97, 76
Find the mean: 18, 6, 48, 17	Find the mean: 12, 15, 4, 5, 14, 27, 45, 24	Find the mode: 8, 8, 3, 7, 7, 6, 3, 5, 5, 8	Find the mean: 27, 42, 18, 46, 51, 32, 30, 6	Find the median: 81, 82, 22, 87, 61, 78, 80
Find the mean: 51, 17, 43, 13, 1, 23, 44, 57	Find the median: 51, 32, 47, 83, 20	Find the mode: blue, yellow, white, white, blue, blue, red, green	Find the mode: 7, 4, 5, 3, 6, 3	Find the mean: 60, 58, 27, 53, 7, 38, 40, 59
Find the median: 46, 68, 82, 37, 86, 43	Find the mode: 5, 3, 4, 4, 8, 5, 4, 4	Find the median: 11, 59, 98, 70, 22	Find the median: 48, 73, 98, 21, 83	Find the mean: 34, 45, 19, 44, 42, 8, 30, 10
Find the mean: 29, 50, 28, 18, 25, 49	Find the mean: 48, 58, 44, 44, 34, 57, 5	Find the median: 69, 64, 90, 72, 32, 71	Find the mode: red, white, white, green, red, white, blue	Find the mode: 3, 6, 8, 3, 6, 7