

# Fractions, Rounding, Ordering, Greater Than/Less Than, Mean, Mode & Median



a) Determine the following mixed fraction.

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b) Round each of the following numbers to the nearest thousand.

i)		ii)		iii)	
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c) Place either  $>$  or  $<$  between the following pairs of fractions or decimals to indicate which is greater.

i)	—	<input type="text"/>	—	ii)	—	<input type="text"/>	—	iii)	—	<input type="text"/>	—
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d) Place each of the following numbers in order of size - from greatest to least.


e) State the mean, mode and median for the following five numbers.

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Mean:

Mode:

Median:

# Percentages, Rounding, Ordering, Patterning

- a) The owner of a local sports store has discounted every item in stock. Calculate the sale price for the following items.

	ITEM	RETAIL PRICE	DISCOUNT	SALE PRICE
i)	A baseball glove	\$60	40%	
ii)	A bicycle	\$640	20%	
iii)	A hockey stick	\$135.95	12.5%	
iv)				

- b) Round off the following numbers to the nearest tenth.

i)		ii)		iii)	
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- c) List the following rational numbers in order from least to greatest (may include fractions and decimals).


- d) What fraction is halfway between \_\_\_\_\_ and \_\_\_\_\_?

Answer:

- e) One number in the following set is not equivalent to the others. Determine which number it is and explain why.

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# Rounding, Ordering, Patterning, Fractions, Greater Than/Less Than



a) Round off the following numbers to the nearest hundredth.

i)		ii)		iii)	
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b) List the following integers in order from least to greatest.


c) What is the number 10 000 before:

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d) By which number is the pattern decreasing?

_____	,	_____	,	_____
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e) Reduce the following fractions to their simplest forms.

i)		ii)		iii)	
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f) Circle either  $<$  or  $>$  to indicate which number is larger in each of the following pairs.

i)		$<$ $>$		ii)		$<$ $>$		iii)		$<$ $>$	
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# Term Value and Graphing



- a) A pattern that increases when the same amount is added to each term is represented in the table below. Complete the pattern.

Term Number	Term Value
1	
2	
3	
4	
5	

- b) A pattern that decreases when the same amount is subtracted to each term is represented in the table below. Complete the pattern.

Term Number	Term Value
1	
2	
3	
4	
5	

- c) Graph the following on the accompanying number line.



# Plotting and Coordinates



a) On the following graph, cite the coordinates for the objects listed in the chart below.



Object	Coordinates
1.	
2.	
3.	
4	
5.	

# Equations and Plotting



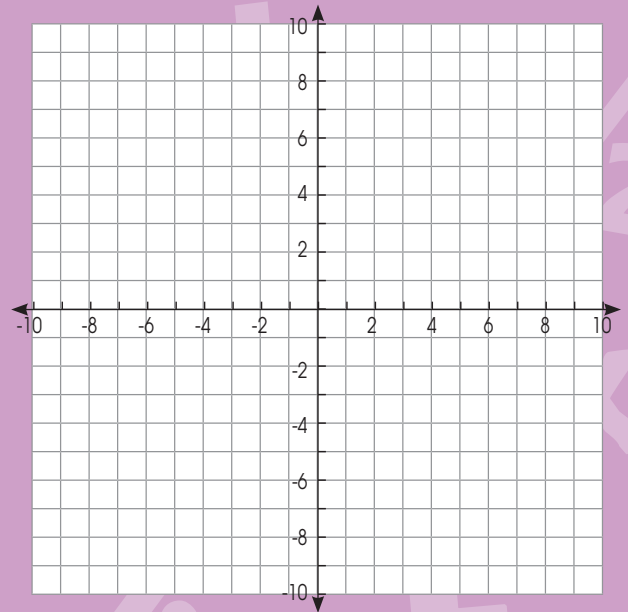
a) Plot the following coordinates on the accompanying chart:

A =

B =

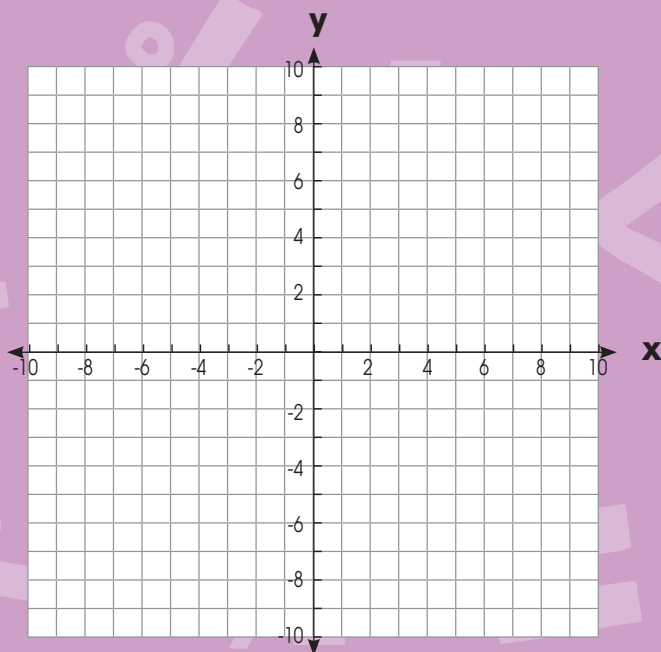
C =

D =



b) Complete the chart below using the equation  $y = 2x + 2$ .

x	-4	-3	-2	-1	0	1	2
y							

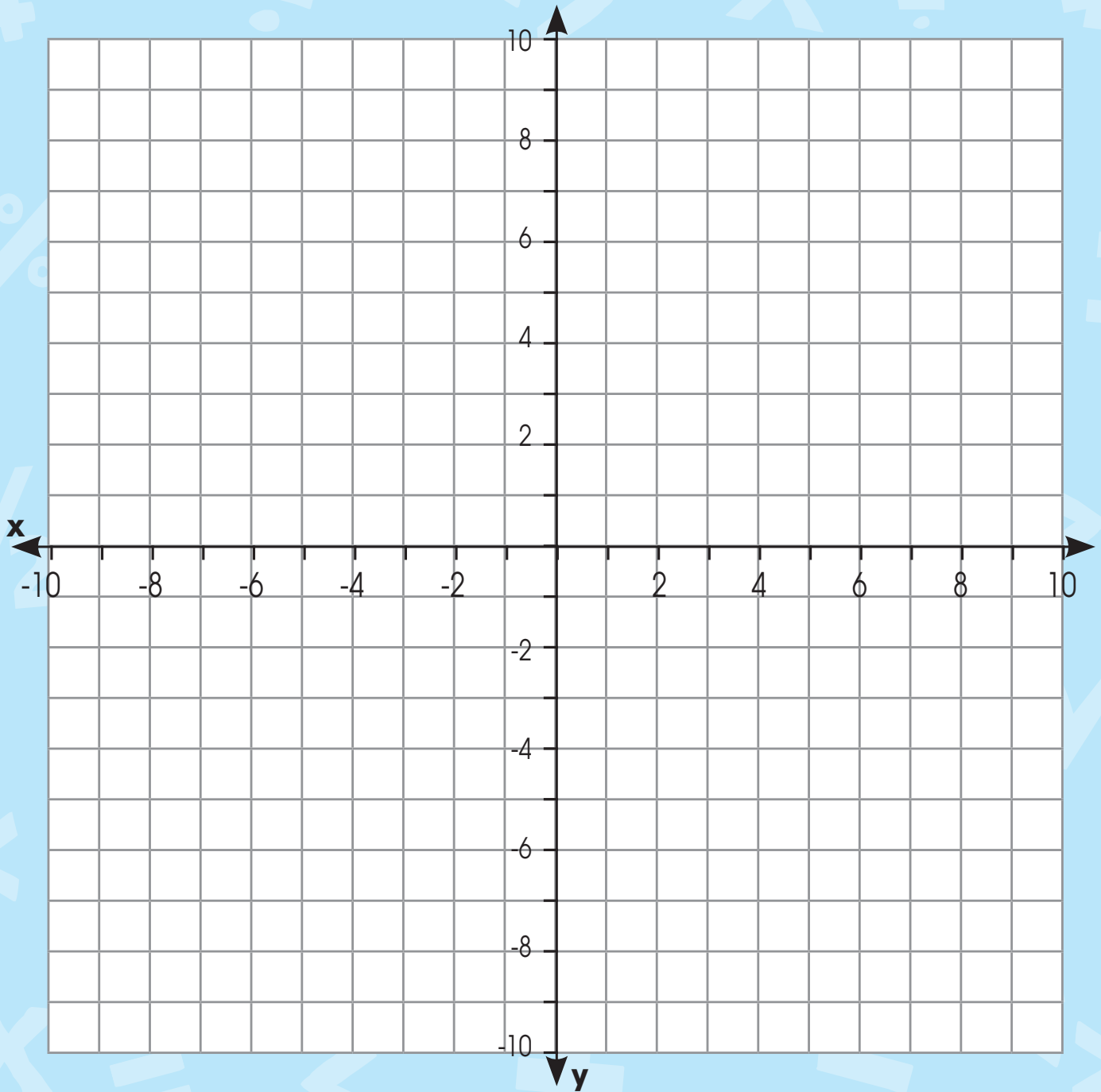


c) Now, plot the coordinates from the chart above on the graph below, then draw a straight line through the coordinates.

# Cartesian Plane



Draw a different shape in each quadrant in the grid below. Write the coordinates for each shape.



# Pythagorean Theorem

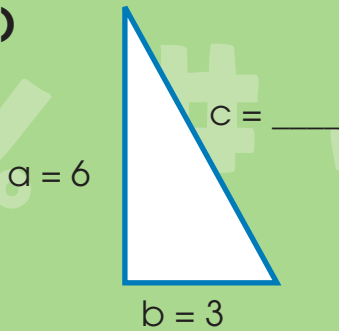


The hypotenuse of a **right triangle** is the side that is opposite the right angle, or the "long side" of the triangle. The other two sides are the "legs" of the triangle.

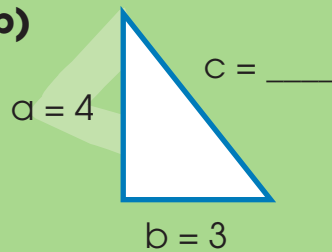
**The theory is  $a^2 + b^2 = c^2$  ( $c^2$  is the hypotenuse)**

**Find the hypotenuse for the following triangles below.**

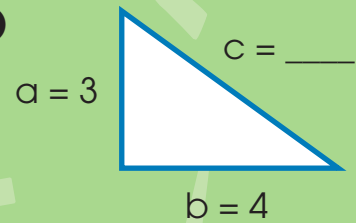
a)



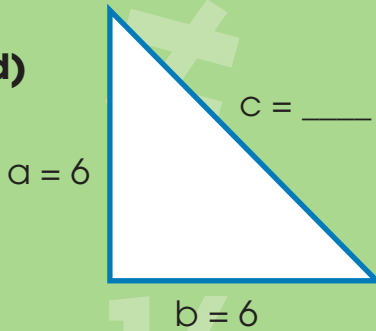
b)



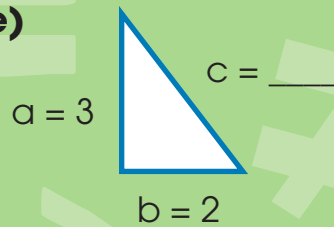
c)



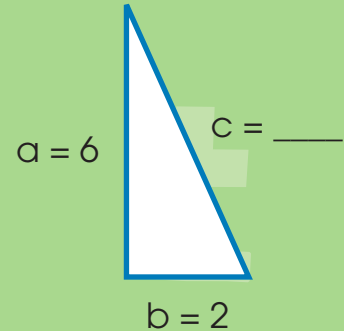
d)



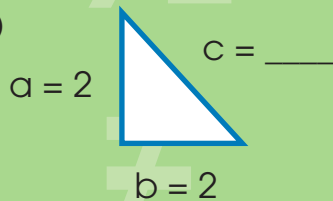
e)



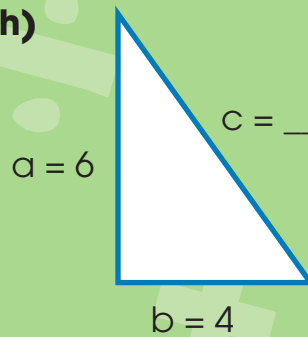
f)



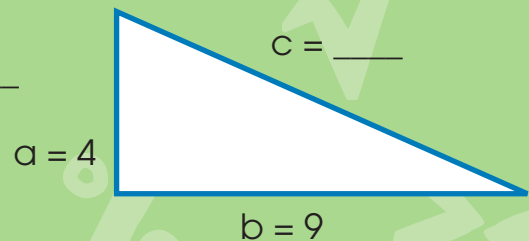
g)



h)



i)



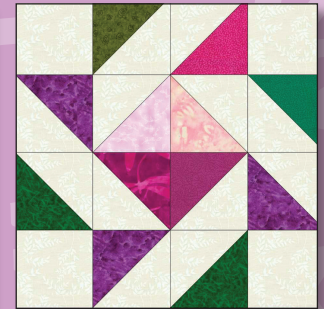
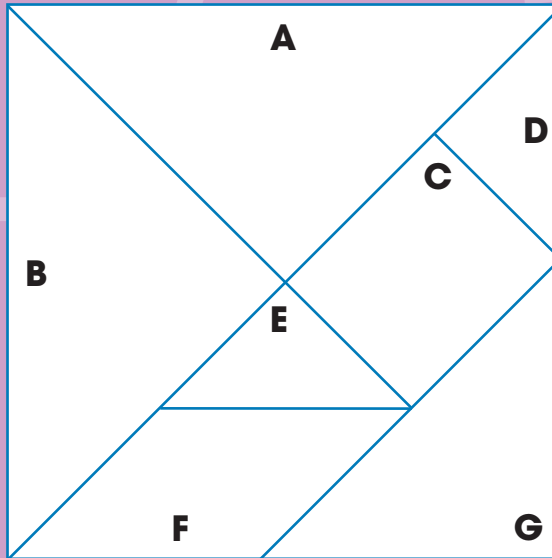


# Tangrams



a) Label the shape of each tangram piece.

A	
B	
C	
D	
E	
F	
G	



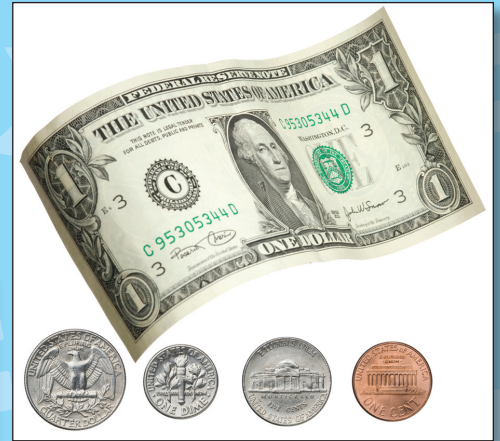
b) Cut apart the seven tangram pieces. Use two or more pieces to create the following shapes. Indicate the individual shapes/pieces used to create each shape.

Trapezoid	
Parallelogram	
Rectangle	
Square	
Triangle	

# Money, Money, Money



You have been assigned to work with a design committee to create a new denomination of coin or bill. Your task is to complete the following tasks as you prepare to release the newest denomination within the year.



- a) Determine which new denomination of coin or bill would be useful to the public.
- b) Create a name for this new denomination.
- c) Explain why this new denomination would be beneficial to consumers.
- d) Select a person to appear on the front of the new coin or bill. This person should be a figure from history who had a positive impact. Explain why this person should appear on a unit of currency.
- e) Design the new coin or bill and how it would look.
- f) Unveil the new design for your classmates. Show ten ways it can be combined with other denominations to make change (for example if you invented the nickel,  $\$1.00 + \text{a nickel} = \$1.05$ ).

# Draw it to Scale



You have been hired by the Scholastic Architectural Firm to design a new classroom. Your job is to draw the design of your state-of-the-art classroom, complete with tools that you think will be useful for students in your class or grade. For this, you are asked to do the following:

- a) Design a floor space for your classroom on a regular piece of white paper. Explain the scale of your drawing (for example 1 inch (1 cm) in your drawing might equal 1 foot (1 meter)).
- b) Identify the area and perimeter of the classroom you have designed.
- c) Add at least three pieces of furniture to your classroom (you do not need to put student desks in your design, but do need to have an area for it). Label the furniture and draw it to scale.
- d) Draw three educational tools that will be incorporated in the floor design. Label the items and draw it to scale.
- e) Explain why your new classroom would be an innovation over current classrooms.
- f) Add the scale to your drawing.

# Time's Up



For this task you will need either a stopwatch or a clock with a minute hand. Your job is to work under the supervision of an adult and to determine a task that everyone in a small group might be able to do (recite a poem, read a passage from a story, do the twelve times table). After you do this:

- a) Time each person in your group performing the task. Record the times on a piece of paper. Denote the number of minutes and/or seconds it takes. This is called the first trial.
- b) Complete the task again now that all members have done it once. This is called the second trial. See how the times change now that each group member has some practice.
- c) Place the times onto a double bar chart representing each participant so times can be compared. Place the names in order from shortest to longest based on the times during the second trial.
- d) Make a list of at least ten observations about the difference in times on the chart from the first trial to the second trial.
- e) Summarize your findings and share them in class.

# Bar and Pictograph



In Berryville, residents grow blueberries. The Phan's grow 752 blueberry bushes. The Edgar's grow 350 blueberry bushes. The Martel's and the Vanderbilt's both have 800 blueberry bushes. The Caspian's and the McDougal's have 500 blueberry bushes each.



Create a bar graph and a pictograph to display this information.


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**Key:**

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# Mean, Median and Mode



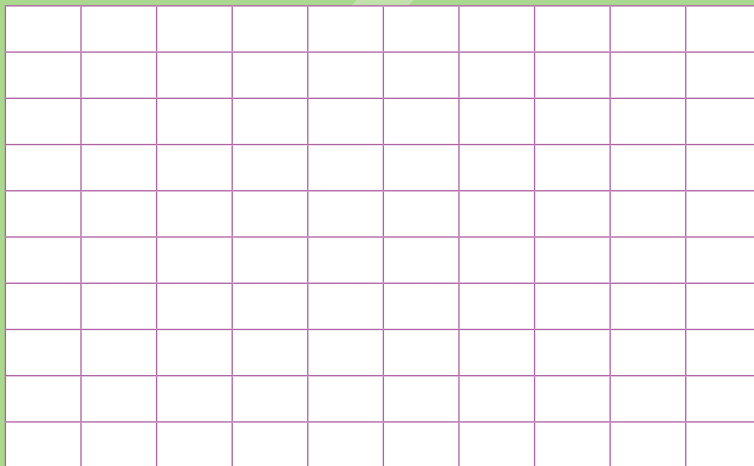
Survey the class about how many hours they play video or computer games per week.



**a) Finish creating the tally sheet then record the data collected.**

Computer and Video Game time	Mon	Tue	Wed	Thur	Fri	Sat	Sun

**b) Create two graphs that represent the data.**



- c) What is the mean of the time spent on games weekly?
- d) What is the mode of time spent on games weekly?
- e) What is the median of time spent on games weekly?
- f) What is the range of time spent on games weekly?
- g) What is the percentage of time spent on games weekly?
- h) Which day of the week do more students play games on?

# Line Graph



Wanda and Mildred love cartoons. Plot this information on a line graph.



- 2001 - Scooby Doo
- 2002 - Teenage Mutant Ninja Turtles
- 2003 - Power Puff Girls
- 2004 - The Transformers
- 2005 - Sponge Bob Square Pants
- 2006 - Pokémon
- 2007 - The Simpsons

Survey the class for their favorite cartoons over seven years. Create a Multiple-line graph to compare the data.

