

Place Value, Ordering



a) Solve the following.

i) × =

ii) + =

b) Write greater than (>), less than (<), or equal to (=) in the box between the two numbers.

i) _____ _____

ii) _____ _____

iii) _____ _____

c) Which number is modeled in the place-value chart below?

100 Thousands	10 Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths

Answer: _____

d) Round each number to the nearest thousand.

i)	<input type="text"/>	ii)	<input type="text"/>	iii)	<input type="text"/>
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e) Write the following group of numbers in order from least to greatest.

i)	<input type="text"/>
	<input type="text"/>

Fractions, Percent



a) Record the following number in the accompanying place value chart.

Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths

b) Shade the model to show the correct fraction below.

Fraction =

c) Find the value of each percent.

i) _____ % of _____ = _____ ii) _____ % of _____ = _____

d) Place either a $>$ or $<$ symbol between the following pairs of fractions or decimals to indicate which is greater.

i) _____ _____

ii) _____ _____

iii) _____ _____

e) Convert the following improper fractions to mixed numbers.

i) _____ = _____

ii) _____ = _____

iii) _____ = _____

f) What is the correct way to write the number _____ in words?

Divisor, Dividend, Remainder

a) Write the equivalent fractions of:

i) _____ \rightarrow _____ ii) _____ \rightarrow _____ iii) _____ \rightarrow _____

b) Calculate the mean, the median and the mode for the following:

_____, _____, _____, _____, _____, _____, _____	Mean =	_____
	Median =	_____
	Mode =	_____

c) Show each fraction as a percent.

i) _____ = _____ % ii) _____ = _____ % iii) _____ = _____ %

d) Divisor = _____, Dividend = _____, Remainder = _____.

What is the quotient? _____

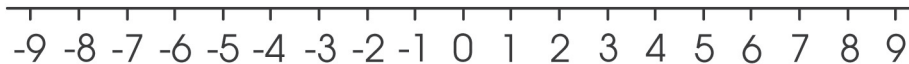
e) What is the LCM of the following numbers. _____, _____

f) Write the following number in expanded form.

= _____

Graphing, Values, Patterning, Algebraic Expressions, Quotients

a) Graph the following on the accompanying number line: _____



b) Find the value of y \times _____ if:

i) $y =$ _____ ii) $y =$ _____ iii) $y =$ _____

c) What is the _____ figure in this pattern? _____



d) Write an algebraic expression for each phrase:

i) _____ times a number = _____

ii) A number decreased by _____ = _____

e) Complete the following patterns:

i) 17, _____, _____, _____, _____.

ii) _____, -23, _____, _____, _____.

f) Find each Quotient.

i) $6 \div$ _____ = _____

ii) _____ \div _____ = _____

iii) _____ \div _____ = _____

Coordinates, Algebraic Expressions, Equations



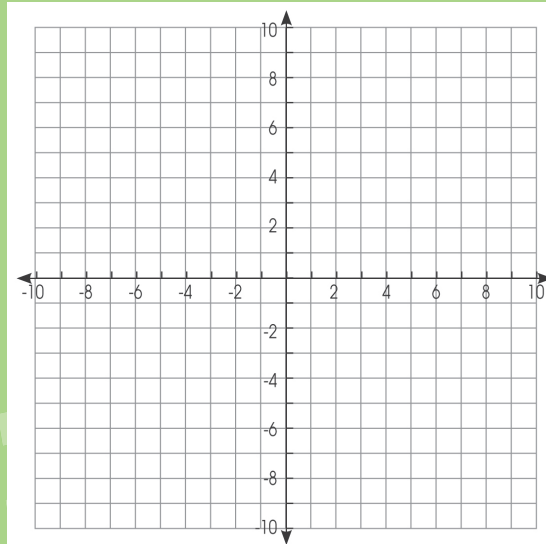
a) On the following grid, cite the coordinates for the four letters indicated.

A = _____

B = _____

C = _____

D = _____



b) Evaluate each algebraic expression with the given values.

i) $2y + x$; where $x = \underline{\hspace{2cm}}$, and $y = \underline{\hspace{2cm}}$

ii) $cd - \underline{\hspace{2cm}}$; where $c = \underline{\hspace{2cm}}$, and $d = \underline{\hspace{2cm}}$

iii) $\underline{\hspace{2cm}}(y - x)$; where $x = \underline{\hspace{2cm}}$, and $y = \underline{\hspace{2cm}}$

c) Solve each equation.

i) $\sqrt{X} = \underline{\hspace{2cm}}$

ii) $\sqrt{X} = \underline{\hspace{2cm}}$

d) Solve for b.

i) $b + \underline{\hspace{2cm}} = 6 \div 2$ $b = \underline{\hspace{2cm}}$

ii) $b - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ $b = \underline{\hspace{2cm}}$

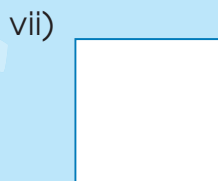
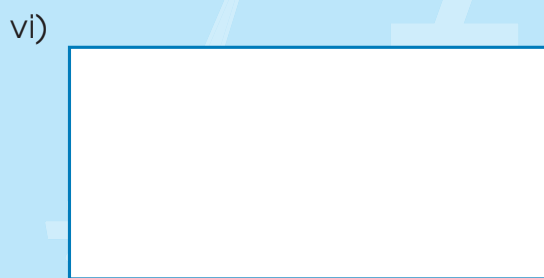
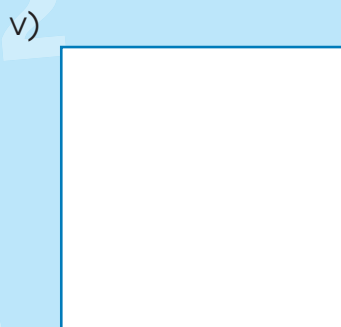
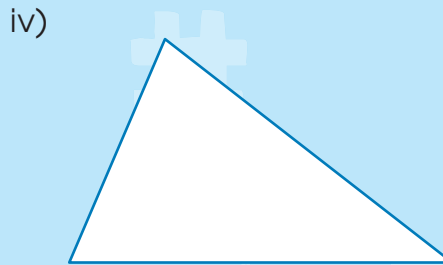
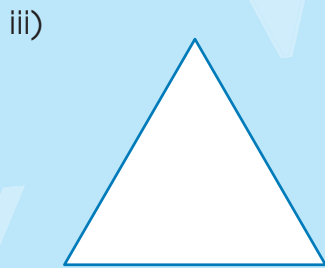
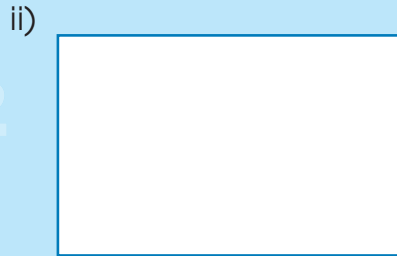
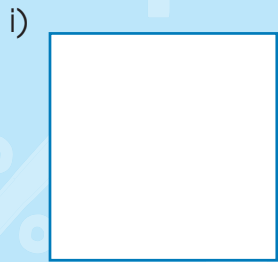
Similar Polygons



Similar polygons are the same shape but different sizes. The corresponding angles are congruent (the same) and all corresponding sides are proportional.



a) Draw the similar polygon for each shape.

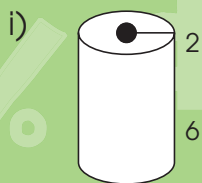


Volume

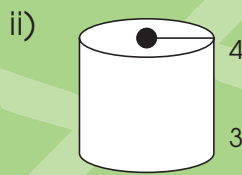


a) Find the volume of each cylinder.

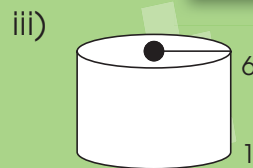
Formula: $\text{volume} = \pi r^2 h$
(π x radius squared x height)
 $\pi = 3.14$



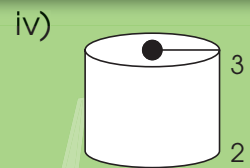
Volume = _____



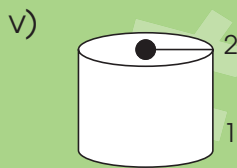
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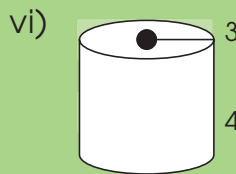
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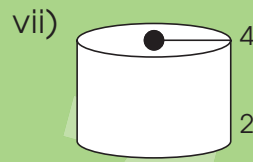
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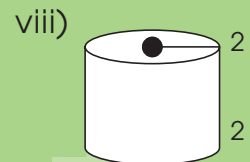
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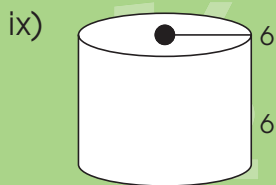
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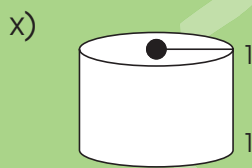
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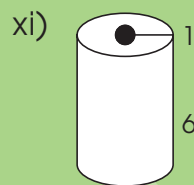
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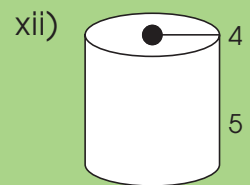
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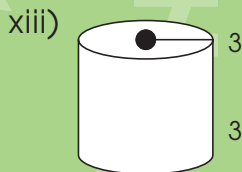
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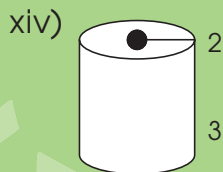
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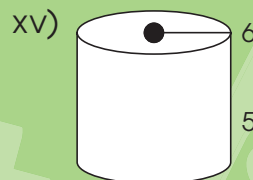
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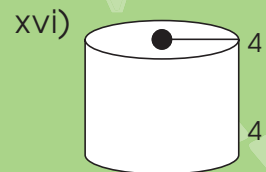
Volume = _____



Volume = _____



Volume = _____



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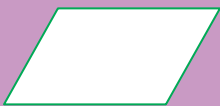
Regular and Irregular Polygons

a) Classify each shape as regular or irregular.

Regular polygons: all sides are the same length and all angles are equal.

Irregular polygons: the sides are of differing lengths and the angles are not the same.

i)



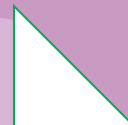
ii)



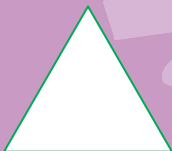
iii)



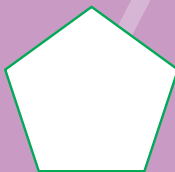
iv)



v)



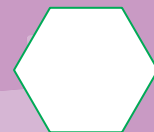
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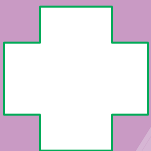
vii)



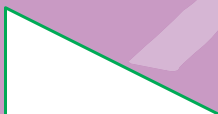
viii)



ix)



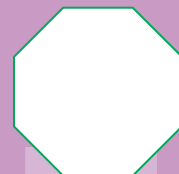
x)



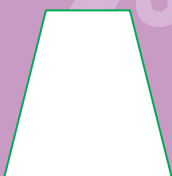
xi)



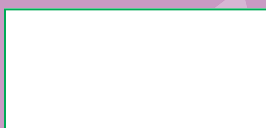
xii)



xiii)



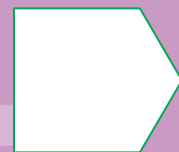
xiv)



xv)



xvi)



xvii)



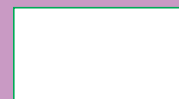
xviii)



xix)



xx)

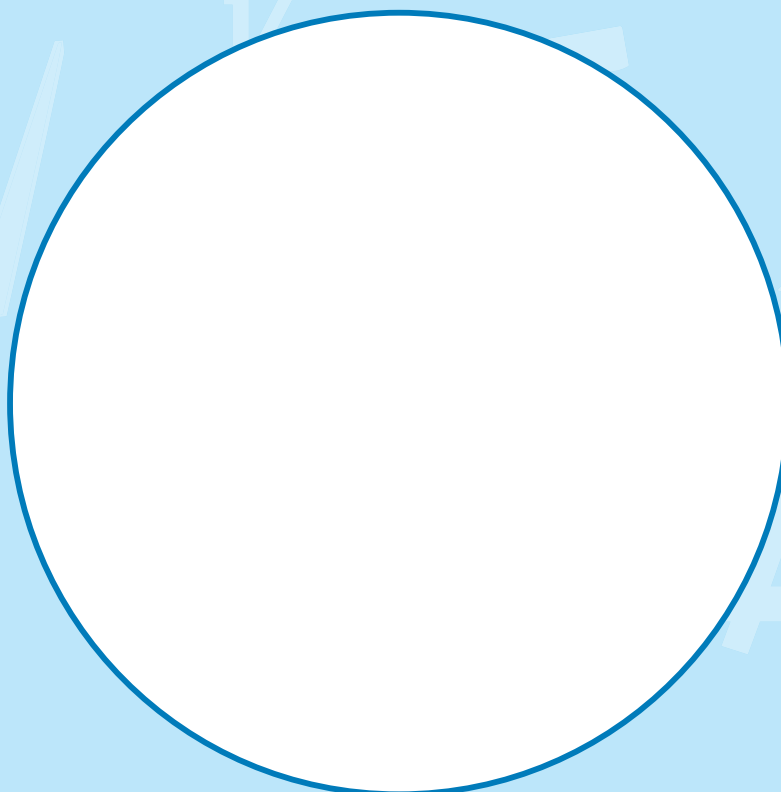


Area of a Circle



Look at the picture of the circle below. Discuss how you can determine the area and perimeter of the circle. Then, in a well developed paragraph, explain how to find the area.

Finally, measure the circle and find the area and perimeter.



Things to consider in your answer:

1. What measurements will you need?
2. What units of measure will you use?
3. How do the measurements you need relate to each other?

Things to consider in your paragraph:

1. Make sure to include a topic sentence and conclusion.
2. Make sure your paragraph contains at least five sentences.
3. Make sure to use transition words to help explain your work.

To Scale



Think about the layout of your school. In small groups, draw a map of your entire school to scale. If possible, work with others to determine the perimeter measurements of your school, as well as interior measurements. Then, working with a teacher or adult, complete the following.

- Select a scale in which to draw your map. For example, 1 inch (1 cm) on your map may equal 10 feet (1.2 meters) in your school. Label the scale on your drawing.
- Draw the perimeter of your school first. Make sure to label the perimeter on your map.
- Draw interior rooms on your map.
- Label the area of your school.
- Identify your classroom. Label the area of your classroom.
- Label important structures in your school.
- Find the perimeter of another room in your school. Make sure you have permission first.

When done, compare your drawings with those of your classmates. Which scale was easiest to work with? Which scale was most difficult? What complications arose in the development of the map?

First, as a class, draw the layout of your classroom below.

Surface Area of a Rectangular Prism



Obtain a box or other rectangular prism. Working alone or in a small group, devise a plan to determine the surface area of the box without measuring any of the sides.



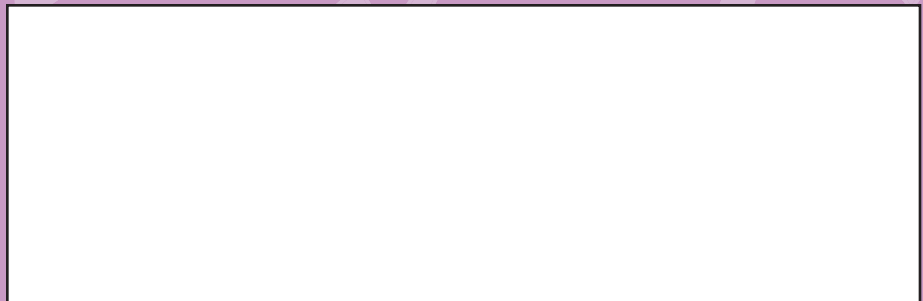
Then, do the following.

1. Explain your plan.

2. Test your plan. Did it work? _____
3. Take measurements of your box. Make sure to identify the main measurements needed for your box. _____
4. Calculate the surface area of the box. _____
5. Compare the surface area you determined by your calculations to the surface area you determined by using your plan. _____

6. Write your findings in a well organized paragraph.

7. Draw a diagram of your box. Label all of the essential measurements you took to determine the surface area.



Probability



As a class or in small groups, roll 2 dice 12 times and record your results below.

a) List the 2-dice combinations you rolled below.

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 2. _____ | 3. _____ |
| 4. _____ | 5. _____ | 6. _____ |
| 7. _____ | 8. _____ | 9. _____ |
| 10. _____ | 11. _____ | 12. _____ |

b) For each 2-dice combination listed above, list the other different 2-dice combinations you could role to get that same total.

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 2. _____ | 3. _____ |
| 4. _____ | 5. _____ | 6. _____ |
| 7. _____ | 8. _____ | 9. _____ |
| 10. _____ | 11. _____ | 12. _____ |

c) For each 2-dice combination listed in section a), list the probability of rolling the total number using any 2 dice.

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 2. _____ | 3. _____ |
| 4. _____ | 5. _____ | 6. _____ |
| 7. _____ | 8. _____ | 9. _____ |
| 10. _____ | 11. _____ | 12. _____ |

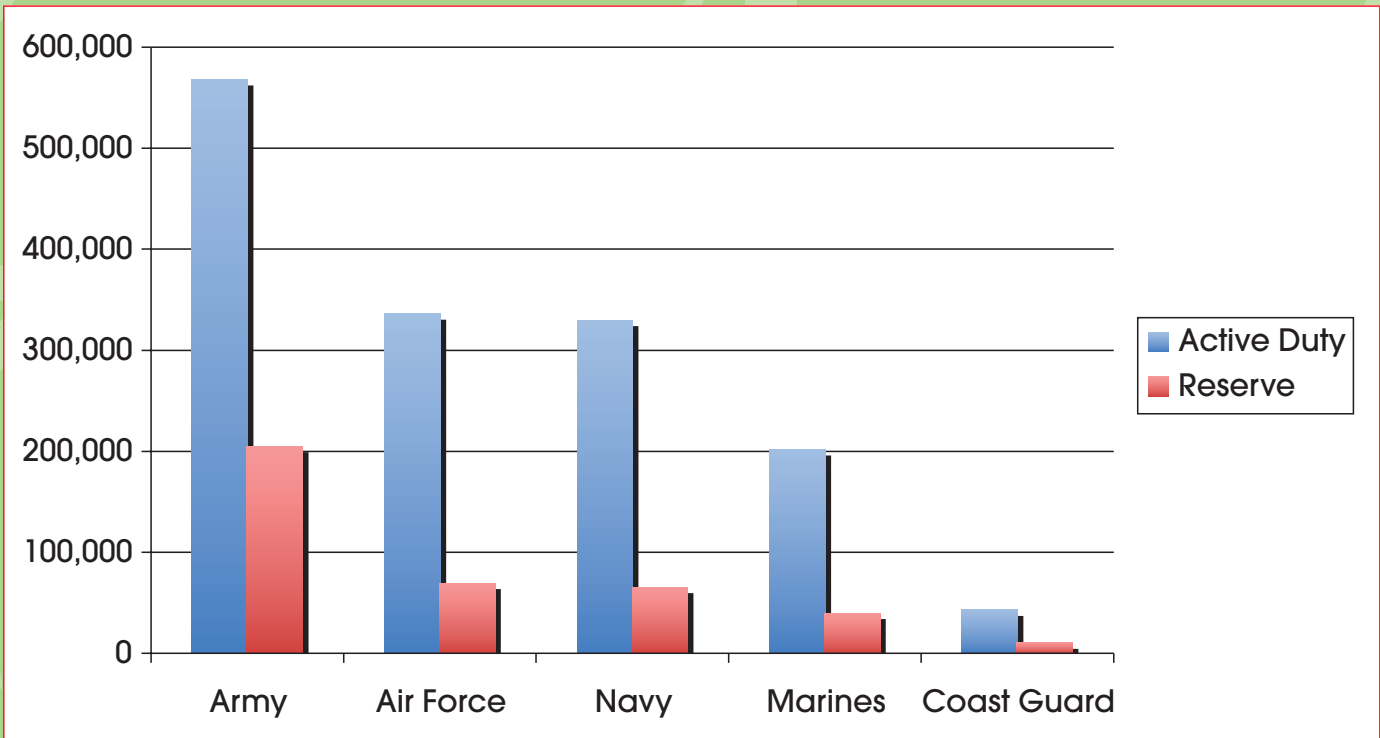
d) List the probability of rolling the following totals with 2 dice.

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 2. _____ | 3. _____ |
| 4. _____ | 5. _____ | 6. _____ |
| 7. _____ | 8. _____ | 9. _____ |
| 10. _____ | 11. _____ | 12. _____ |

Ordering



The graph below shows the size of the U.S. military forces. Working with a partner or in a small group, use this graph to complete the activity.



a) List the armed forces active duty sizes from least to greatest.

b) List the armed forces reserved sizes from least to greatest.

c) List three comparisons that can be drawn between the armed forces.

d) List four conclusions that can be drawn from this data.

Proportions and Fractions



The tally chart below shows how people responded to a question about ice cream flavors. Work with a partner or small group to answer the questions below.



Flavor	Student's responding
Vanilla	/////
Chocolate	///// /////
Butternut	///
Mint	///// /
Rocky road	//
Watermelon	///

a) What question might students have been asked in order to get the results shown on this chart?

b) List the flavors in order from most votes to least votes.

c) Identify how many students were asked to participate in this chart.

d) Make three proportions for this chart (example, what is the ratio of students who chose chocolate to students who chose watermelon).

e) Make three fractions based on this chart (example, what fraction of the total students selected rocky road).

f) As a group, decide what type of graph best shows this data. Then, put this data into the graph.