SL-1 Math Summer Review

Welcome to SL-1!

Often times over the summer it is easy to forget some of the things you have learned. Here at Calverton we like to send work home to be completed throughout the summer in order to help students start their next year off strong.

Please complete the attached worksheet throughout the summer and avoid completing them all in the week before school starts. Please make sure you show all your work along the way. This will count as your first grade and needs to be completed for the first day of school.

There is a video list to accompany the worksheets as well as a math help day for support in completing the required summer work.

Please email Mrs. Crissman acrissman@calvertonschool.org or Mr. Kerin wkerin@calvertonschool.org for any questions about the requirements.

Have a great summer!

Name:

Number System

Define the following, write the symbol, and fill in the chart with at least 3 examples of each.

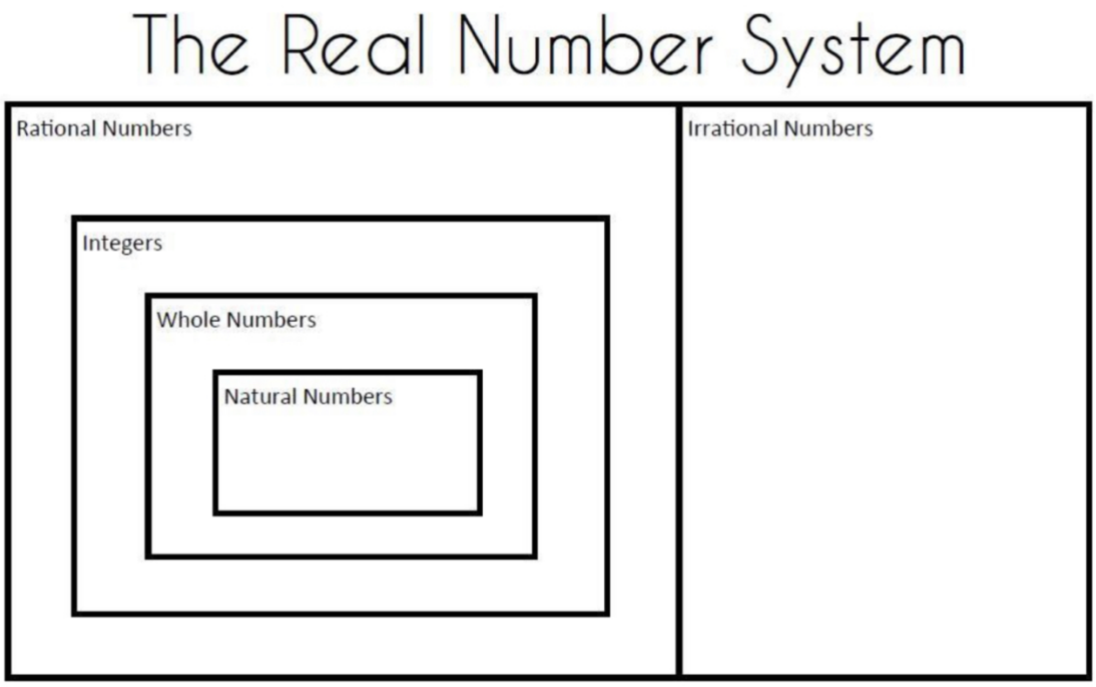
Rational Numbers:

Integers:

Whole Numbers:

Natural Numbers:

Irrational Numbers



Name:

Operations with Fractions and Decimals

Solve each expression by hand. Simplify answers completely.

1) $\frac{4}{12} + \frac{7}{12}$	4) $\frac{11}{15} - \frac{3}{15}$
2) $\frac{2}{3} + \frac{4}{9}$	5) $\frac{5}{8} - \frac{1}{2}$
3) $\frac{3}{6} + \frac{3}{5}$	6) $\frac{3}{4} - \frac{2}{3}$
11) $\frac{4}{11} \times \frac{6}{3}$	14) $\frac{4}{5} \div \frac{2}{8}$
12) $\frac{3}{8} \times \frac{5}{7}$	15) $\frac{2}{9} \div \frac{3}{10}$
13) $\frac{3}{6} \times 4$	16) $8 \div \frac{3}{4}$

Solve each expression

1. 14.4 + 6.912

2. 18.7 – 9.35

3. (2.13)(6.8)

4. (33.5)(0.17)

5. $\frac{0.62}{6.8}$

6. $\frac{7.812}{0.03}$

7. 38.4 + 7.882

8. 16.75 – 9.9

Simplify each algebraic fraction.

1. $\frac{35n}{40}$

2. $\frac{8a}{24a}$

3. $\frac{14an}{24n}$

4. $\frac{15a^2n^2}{18a^3n}$

5. $\frac{2a^3n^4}{10a^5n}$

6. $\frac{an^2}{a^2n}$

7. $\frac{4x^2-8x^3y^2}{2xy}$

8. $\frac{n}{3n^2}$

Name:

Percent, Ratio, and Percent Change

Write the percent below in decimal form. Calculate the answer. Round to the nearest cent.

	Decimal Form	Answer
1. 37% of $82	1._____	_____
2. 6.5% of $70	2._____	_____
3. 150% of $8,300	3._____	_____
4. 0.02% of $5420	4._____	_____
5. 19.99% of $3,125	5._____	_____
6. 100% of $750	6._____	_____
7. 0.5% of $1,000,000	7._____	_____
8. 14.9% of $2,850	8._____	_____
9. 1.75% of $14,000	9._____	_____
10. 200% of $450	10._____	_____

Convert the decimal or fraction to a percent.

11. 0.65

12. $\frac{1}{5}$

13. 0.87

14. 0.245

15. $\frac{2}{7}$

16. $\frac{4}{5}$

17. 1.3

18. 0.96

Calculate the following showing all your work.

19. The Morris family drove 405 miles in 9 hours. What was their average speed in miles per hour?

20. Corbin has 930 apple trees on his 5-acre orchard. How many trees does Corbin have per acre?

21. Amanda bought 3 bottles of vitamins for $18. What was the price per bottle?

22. Jose ran 6.6 miles on a treadmill. It took him 1.2 hours. What was his speed in miles per hour?

23. Jack bought 6 bananas for $0.45. What was the unit price?

Calculate the percent change showing all your work.

24. In September, there were 16 members in the music club. In October, the number of members was 24, What was the percent increase from September to October?

25. The population of a town in the year 2000 was 400. If the population in the town increased to 500 in 2010, what is the percent increase in the population?

26. The price of a phone decrease from $180 to $144. Solve for the percent decrease.

27. 20 out of 22 students passed the quiz. What percentage of students passed the quiz?

28. There are 3 red pencils and 17 blue pencils. What percent of pencils are blue?

MATH Name _____

Setting Up Proportions

Solve each proportion.

1. $\frac{7}{16} = \frac{x}{32}$

2. $\frac{7}{4} = \frac{21}{b}$

3. $\frac{y}{9} = \frac{4}{12}$

4. $\frac{5}{a} = \frac{9}{27}$

5. $\frac{18}{24} = \frac{6}{d}$

6. $\frac{15}{6} = \frac{n}{2}$

7. $\frac{r}{10} = \frac{21}{7}$

8. $\frac{4}{m} = \frac{8}{11}$

9. $\frac{17}{50} = \frac{x}{25}$

Write a proportion that could be used to solve each variable. After you have written all the proportions, go back and solve them if you have time.

10. 1 subscription for $21
28 subscriptions for x dollars

11. 20 ounces at $7
17 ounces at x dollars

12. 1 gallon of water weighs $8\frac{1}{3}$ pounds
30 gallons of water weighs x pounds

13. 1 cm represents 3.5 km
2.4 cm represents x km

14. 5 liters at $15.25
x liters at $33.55

15. 3 packages of cheese for $7.17
6 packages of cheese for x dollars

16. 225 bushels for 3 acres
x bushels for 9.6 acres

17. 25 cm by 35 cm enlarged to
150 cm by x cm

18. 20 cm by 30 cm reduced to 12 cm
by x cm

19. 64 ft of rope weighs 20 pounds
28 ft of rope weighs x pounds

20. $\frac{1}{4}$ in. represents 1 m
5 in. represents x m

21. 2 liters of orange juice at $3.58
5 liters of orange juice at x dollars

22. 2 tires at $240
x tires at $1080

23. 200 miles in 2.5 days
x miles in 8 days

24. 450 km on 45 liters of gas
1500 km on x liters of gas

25. 3 shirts for $56.85
x shirts for $132.65

26. $\frac{1}{4}$ in. represents 1 ft
x in. represents 25 ft

27. 5 hours for $53.75
3 hours for x dollars

28. 2.5 pounds of meat for 2 dogs
x pounds of meat for 7 dogs

29. 2 inches of rain in 2.5 hours
3.6 inches of rain in x hours

Name: _____ Date: _____

Metric Conversion Worksheet

1. 5.712 g =_____ kg
2. 222.7 L =_____ dL
3. 16.45 m =_____ cm
4. 39.56 g =_____ mg
5. 10.5 g =_____ dkg
6. 3.54 mg =_____dg
7. 28.6 g =_____ hg
8. 910 m =_____ dm
9. 0.006700 kg =_____ cg
10. 1488 cm =_____hm
11. 42.68 L =_____ kL
12. 2.78 cm =_____km
13. 5.44 m =_____ cm
14. 15.82 mL =_____ cm^3
15. 0.0568 g =_____mg
16. 0.178 mg =_____ g
17. 85.4 cm =_____ km
18. 52.13 dg =_____mg
19. 11.50 cL =_____ dkL
20. 696.7 m =_____ mm
21. 7.050 L =_____ mL
22. 9.133 g =_____kg
23. 8.24 km =_____dm
24. 43.6 m =_____cm

Name: _____ Date: _____

1. Nickolai lives at one end of Oregon Trail. Sydney lives at the other end of the trail. It is 5.8 kilometers from one end of Oregon Trail to the other. If Nickolai walks 2.79 kilometers toward Sydney's house, how many more METERS does he have to walk to get there?

2. Adam had the chicken pox and had to stay inside even though he didn't feel very bad at all. He decided to make a cake to surprise his mother. The recipe said he needed 4 deciliters of milk. How many LITERS of milk did he need?

3. Xion and Kyndol wanted to have a contest to see which of their paper airplanes could fly the longest distance. Xion's plane flew 4 meters. Kyndol's plane flew 79 centimeters. How much further did Xion's plane fly in METERS?

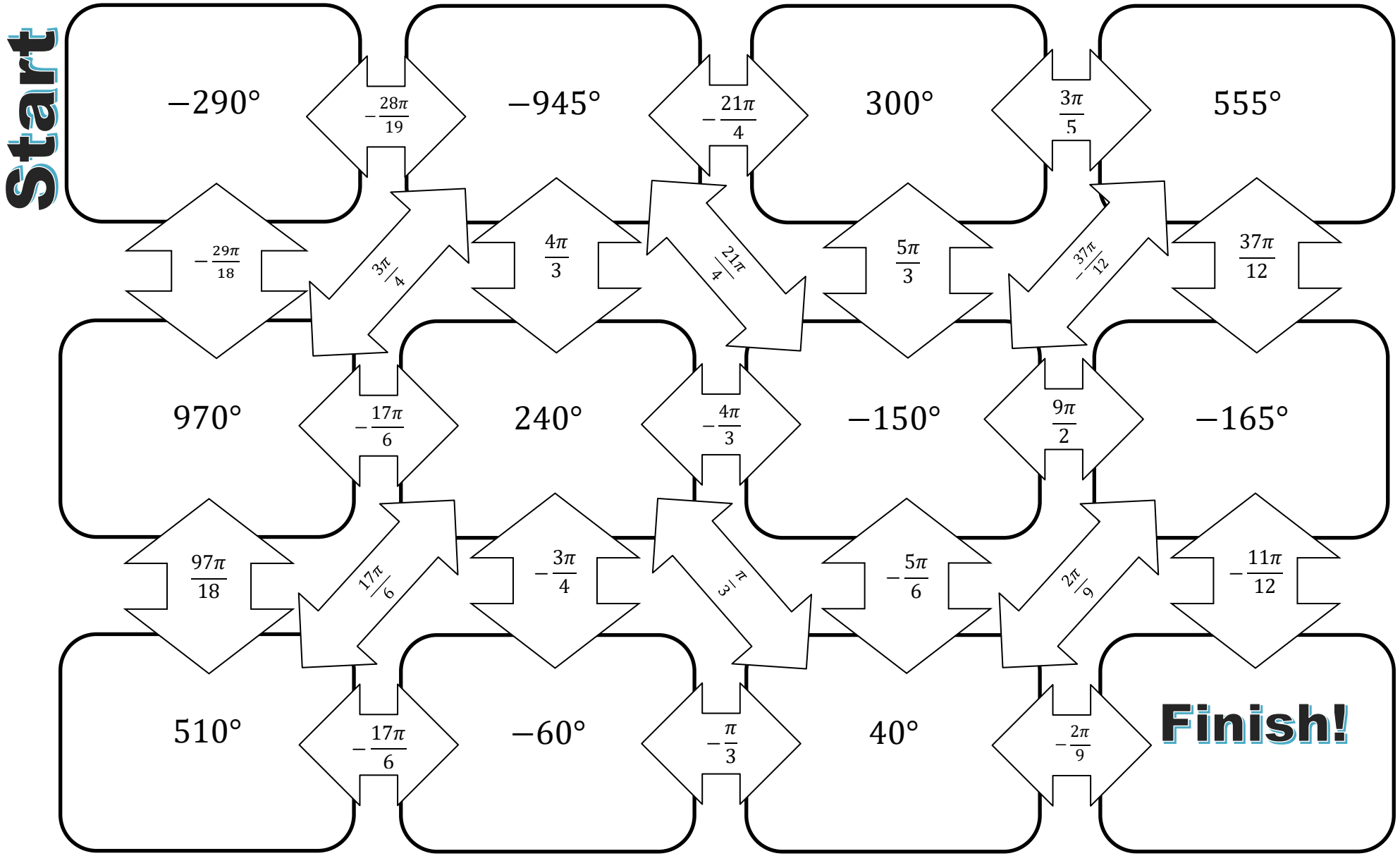
4. Nala's boyfriend gave her a heart-shaped box of candy with 0.79 kilograms of candy in it. Madysin was jealous because her boyfriend only gave her 0.3 kilograms of candy. How many GRAMS more did Nala get?

5. Adrienne was given a tiny lamb by her aunt. The lamb was a runt and had to be fed by hand. Every 3 hours Adrienne had to give it 290 milliliters of milk. How much milk, in LITERS, will the lamb get in 24 hours?

Degrees & Radians Conversion

Name: _____ Date: _____

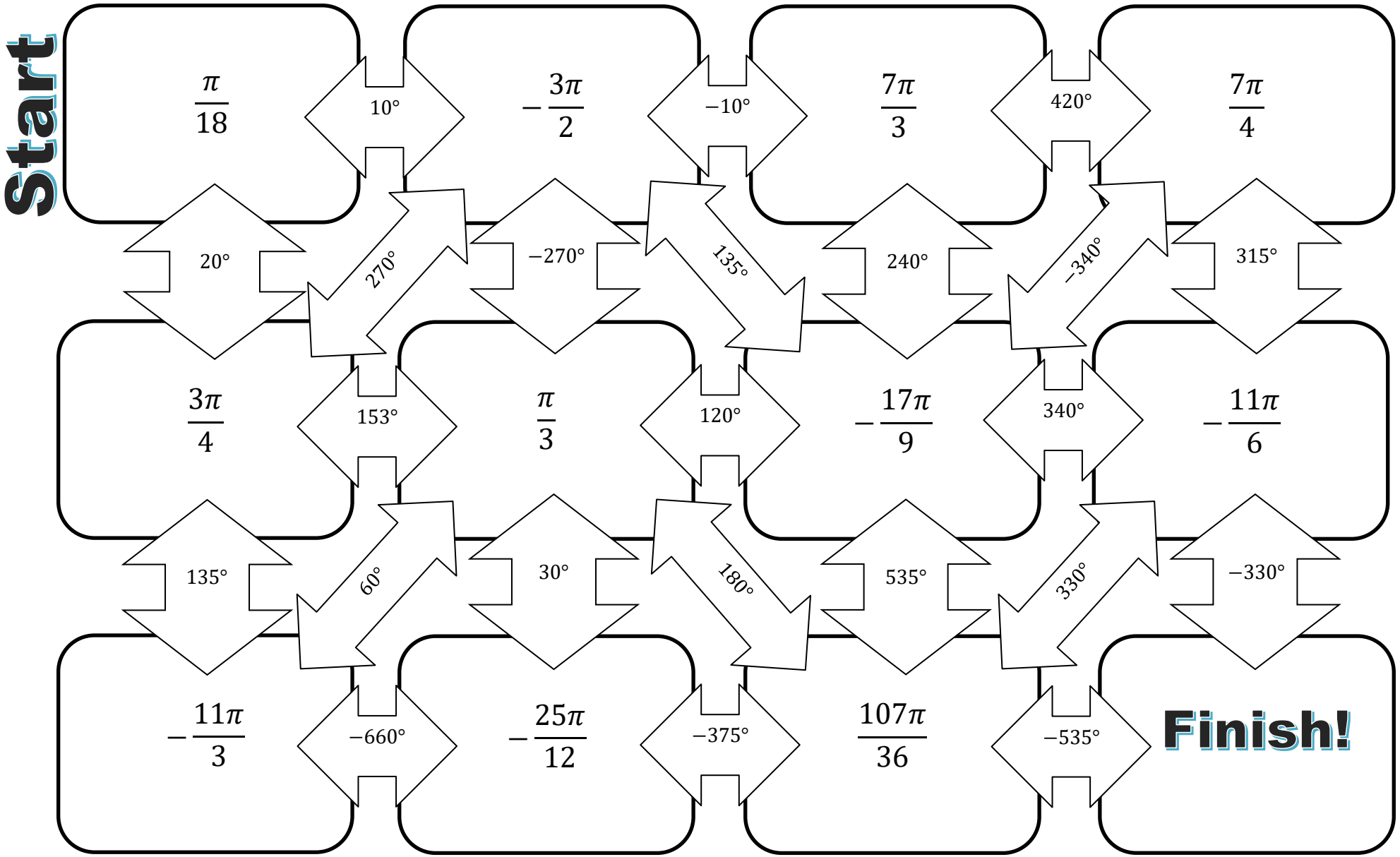
Instructions: **Convert each degree measure to radians.** Shade or color your path as you go.



Degrees & Radians Conversion

Name: _____ Date: _____

Instructions: **Convert each radian measure to degrees.** Shade or color you path as you go.



Name:

Data

1. The table shows the relationship between students' time studying for a test and their test score. Use the data below to answer the following questions.

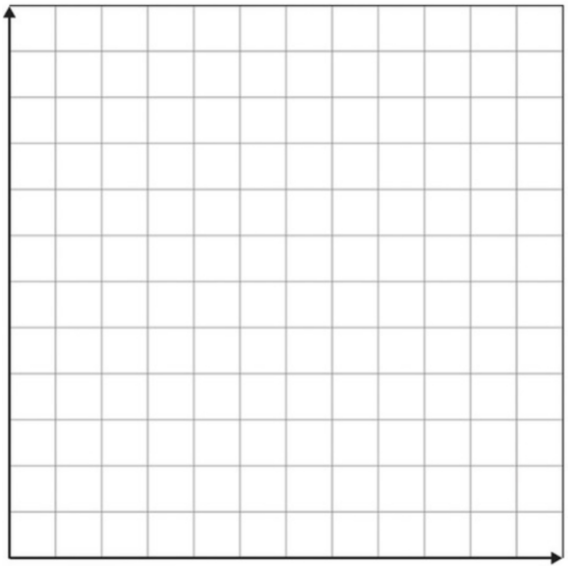
Table

minutes studied	grades
20	30
40	40
50	40
60	20
60	60
60	95
70	75
80	75
90	90
90	95

   a. Calculate the mean, median, and mode of minutes studied.

   b. Calculate the mean, median, and mode of the grades.

   c. Make a scatter plot of the data. Choose and label an appropriate scale. Label the axis and scatter plot. Plot and label the mean point. Draw a line of best fit.



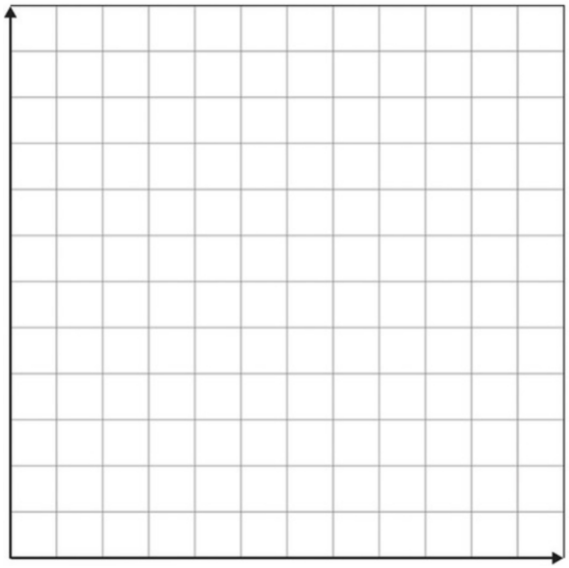
2. The table shows the number of hours students slept and their Schroeder on an exam. Use the data below to answer the following questions.

Hours Slept	8	7	7	8	6	5	7	4	9	7
Test Score	83	86	74	88	76	63	90	60	89	81

a. Calculate the mean, median, and mode of the hours slept.

b. Calculate the mean and the median of the test score.

c. Make a scatter plot of the data. Choose and label an appropriate scale. Label the axis and scatter plot. Plot and label the mean point. Draw a line of best fit.



d. Does there appear to be a relationship between hours slept and test score?

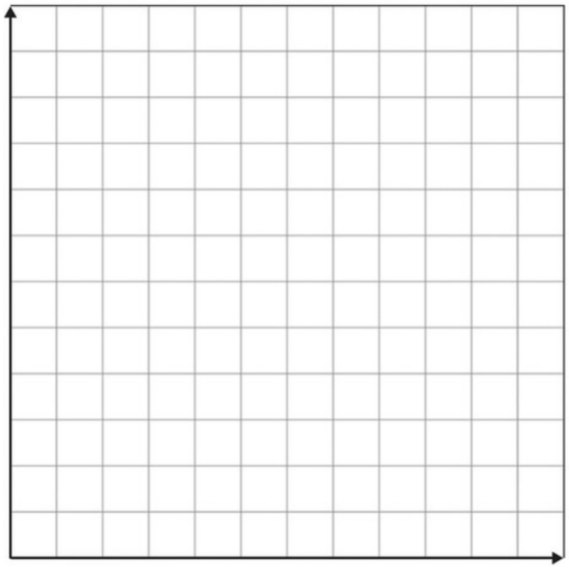
e. Based on the graph, predict what the median test score would be if the student slept 6.5 hours.

3. The table shows the height and weight of four 8th grade boys. Use the data below to answer the following questions.

   a. Calculate the mean and median of the height.

   b. Calculate the mean and the median of the weight.

   c. Make a scatter plot of the data. Choose and label an appropriate scale. Label the axis and scatter plot. Plot and label the mean point. Draw a line of best fit.



   d. Does there appear to be a relationship between height and weight?

   e. Based on the graph, predict what the median weight would be for an 8th grade boy 5.5 feet tall.

Solving Multi-Step Equations

Directions: You need to earn ____ points on this assignment. You get to choose which problems to do. Solve the equation. Justify each step (aka show your work!).

1 point each

1) $x + 5 = 8$ 2) $n - 6 = -7$ 3) $4q = 52$ 4) $\frac{x}{6} = 8$

2 points each

5) $3w + 7 = 19$ 6) $\frac{a}{3} + 4 = 6$ 7) $8y + 3y = 44$ 8) $\frac{h+6}{5} = 2$

3 points each

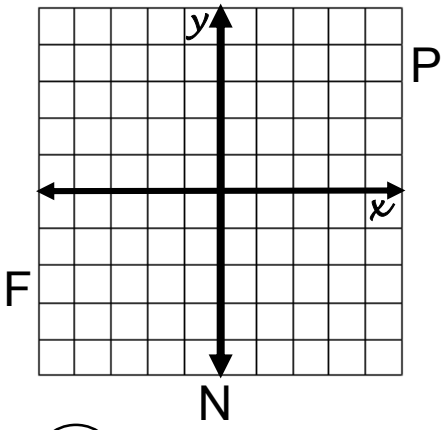
9) $4(x + 5) = 32$ 10) $6 + 5(m + 1) = 26$ 11) $27 = 3c - 3(6 - 2c)$

12) $\frac{2x+26}{5} = 3x$ 12) $\frac{x-3}{2} + 8 = 20$ 12) $5p - 9 = 2(p + 6)$

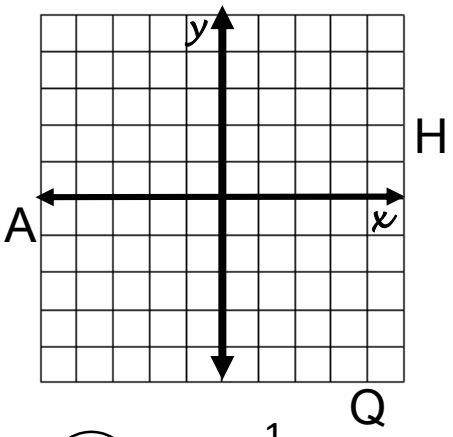
How many months of the year have 28 days?

Use the slope *(m)* & the y-intercept *(b)* to graph each equation below. When graphed, the line will cross through a letter. Write this letter in each box that contains that number below.

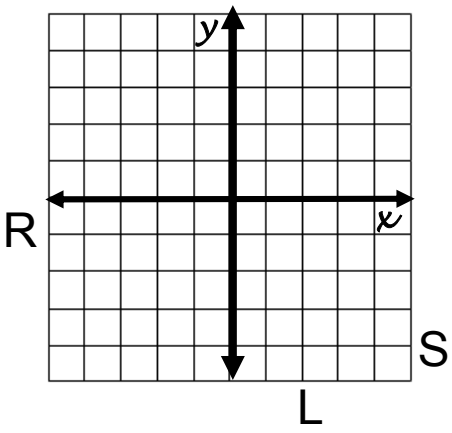
1 $y = x + 3$



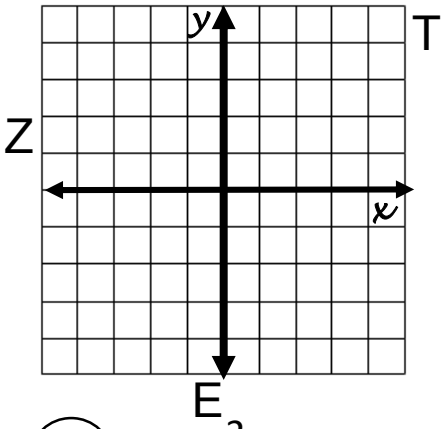
2 $y = \frac{6}{5}x - 5$



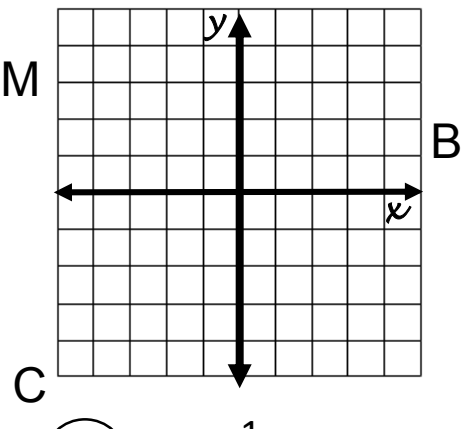
3 $y = -4x + 3$



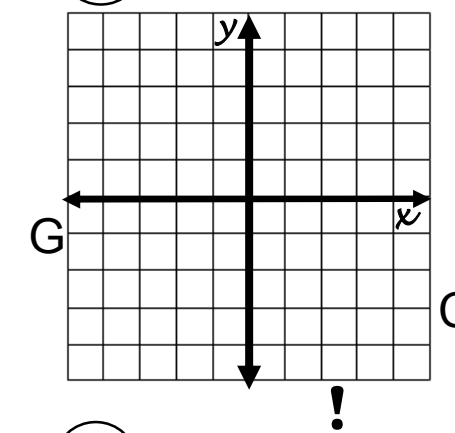
4 $y = 5x - 3$



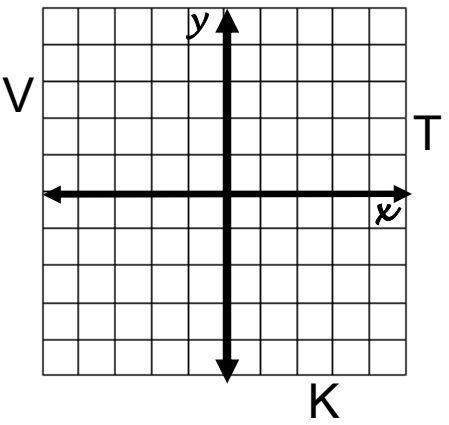
5 $y = -\frac{1}{3}x + 1$



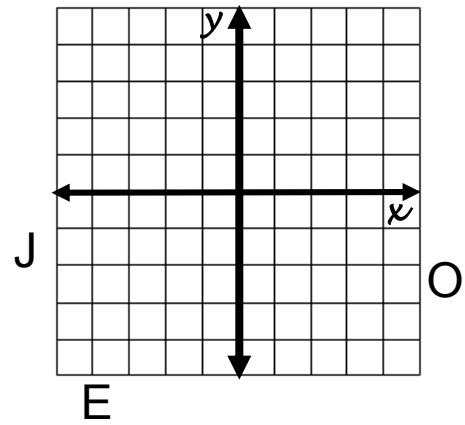
6 $y = -3x + 2$



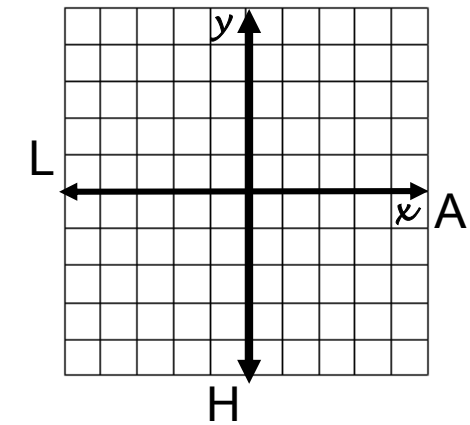
7 $y = \frac{2}{3}x - 2$



8 $y = -\frac{1}{4}x - 1$



9 $y = -x + 5$



9	3	3	8	1	7	2	4	5	6

Name:

Linear Equations and Rates of Change

Use the slope formula to find the rate of change between the two points.

1. (0, - 4) and (- 3, 5)

2. (9, 5) and (- 6, 10)

3. (- 4, -4) and (4, -2)

4. (- 5, 4) and (0, - 3)

5. (- 3, 7) and (9, - 1)

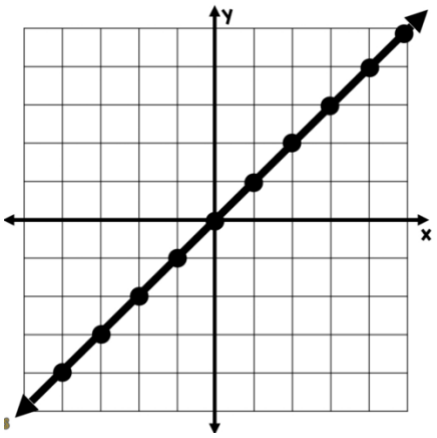
6. (7, 7) and (1, 2)

7. (- 5, 3) and (3 1)

8. (8, 0) and (3, 0)

Write the formula for each of the given graphs.

9.

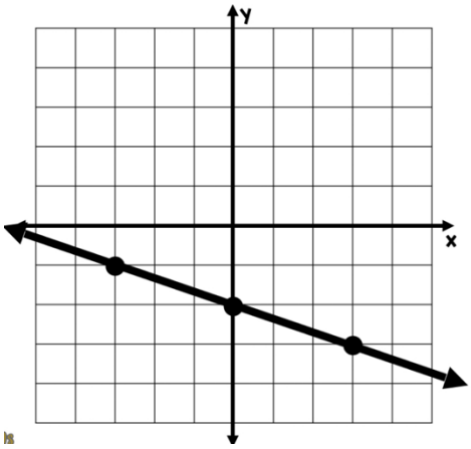


Slope:

y-intercept:

Equation:

11.

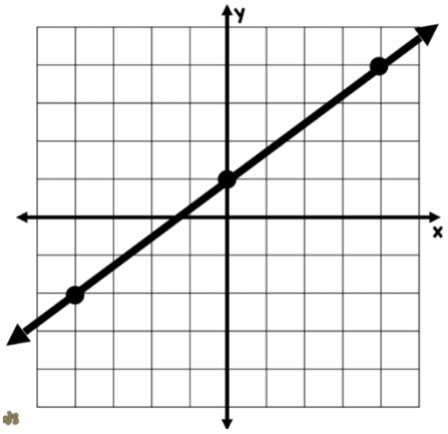


Slope:

y-intercept:

Equation:

10.

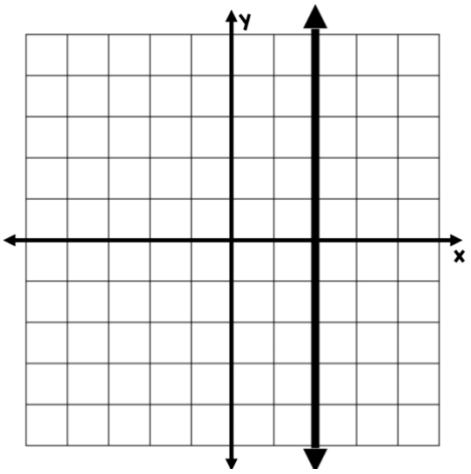


Slope:

y-intercept:

Equation:

12.

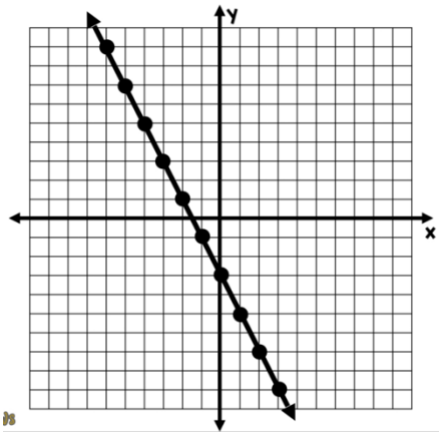


Slope:

y-intercept:

Equation:

13.

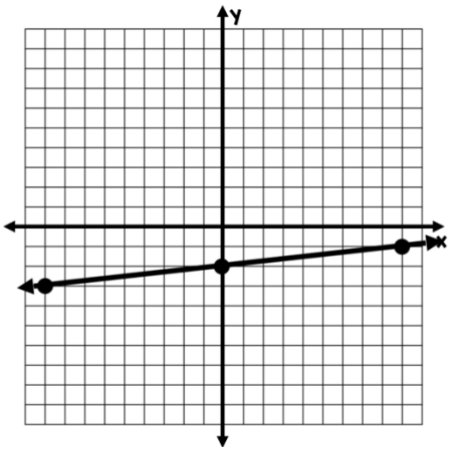


Slope:

y-intercept:

Equation:

15.

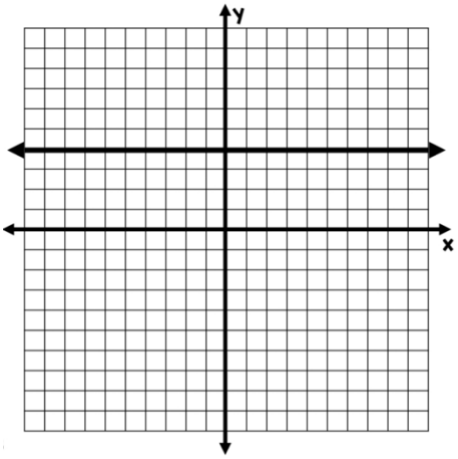


Slope:

y-intercept:

Equation:

14.

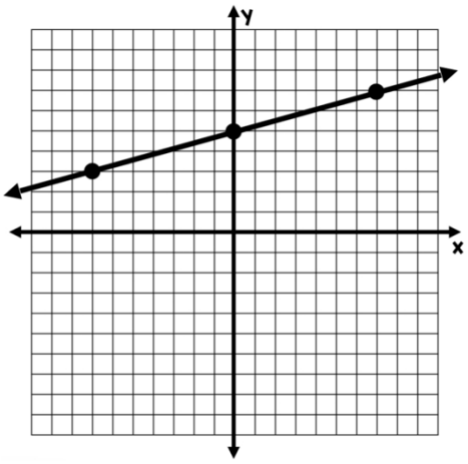


Slope:

y-intercept:

Equation:

16.



Slope:

y-intercept:

Equation:

Name:

Rearrange Equations

Rearrange the equations to solve for the given variable. Show all steps.

1. Solve for *a* $d = v_1 \Delta t + \frac{1}{2} a \Delta t^2$

2. Solve for v_1 $d = \left(\frac{v_1 + v_2}{2}\right) \Delta t$

3. Solve for *f* $a_c = 4\pi^2 r f^2$

4. Solve for *T* $PV = nRT$

5. Solve for *v* $L_m = L_s\sqrt{1 - \frac{v^2}{c^2}}$

6. Solve for λ $E = \frac{hc}{\lambda}$

7. Solve for *C* $c^2 = a^2 + b^2 - 2ab\cos C$

8. Solve for *T* $v = \sqrt{\frac{3RT}{M}}$

9. Solve for M_2. $\frac{r_1}{r_2} = \sqrt{\frac{M_2}{M_1}}$

10. Solve for *L* $T = 2\pi\sqrt{\frac{L}{g}}$

11. Solve for *k* $T = 2\pi\sqrt{\frac{m}{k}}$

Name:

System of Equations

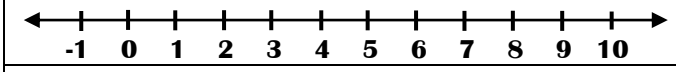
Solve each system of equations. Show all your work and check your answers.

1.) $y = -2$ $y = 4x + 6$	2.) $y = 3x$ $y = -5x - 8$
3.) $y = -4x + 5$ $y = 2x - 7$	4.) $2x + 3y = 12$ $x + y = 5$
5.) $x = 3y - 1$ $x + 2y = 9$	6.) $x - y = 2$ $4x - 3y = 11$
7.) $y = 2x - 5$ $4x - y = 7$	8.) $x = 4 + y$ $2x - 3y = 1$

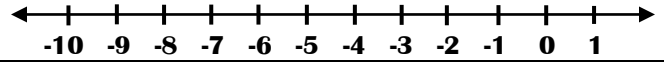
Name _____ **Date** _____

Solve each inequality and graph the solution on the number line.

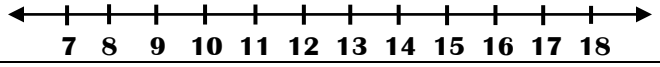
1. $\frac{x-5}{4} \geq \frac{1}{2}$



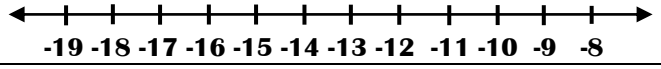
2. $\frac{x+6}{10} < \frac{2}{5}$



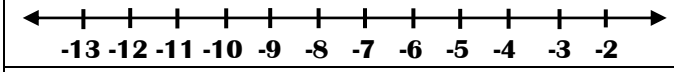
3. $\frac{x+9}{9} \geq \frac{7}{3}$



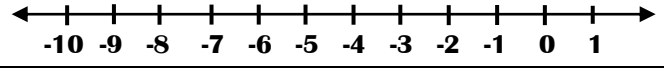
4. $\frac{1-2x}{10} \geq \frac{5}{2}$



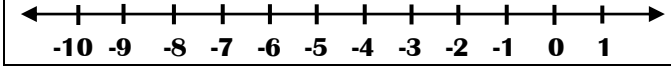
5. $\frac{3x}{4} + 15 \leq 9$



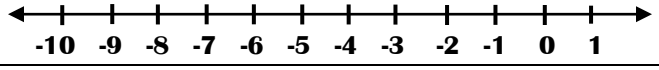
6. $6 - 5(x+1) - 2x > 15$



7. $\frac{x}{9} + 6 > 5$



8. $\frac{4x+20}{14} \geq 0$

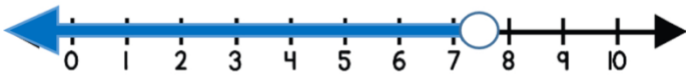


Name:

Inequality Notation

Write the graph with inequality notation.

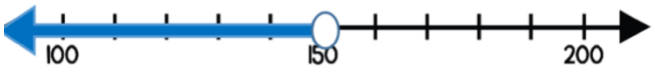
1. 

2. 

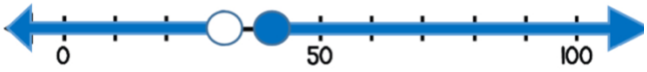
3. 

4. 

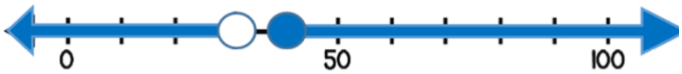
5.



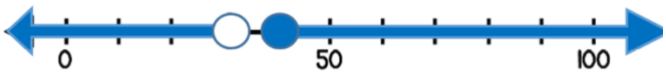
6.



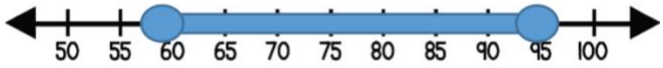
7.



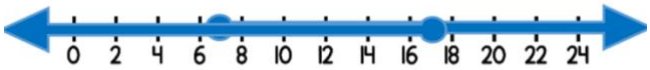
8.



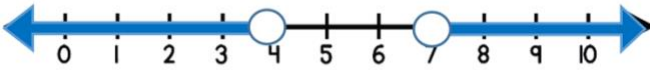
9.


50 55 60 65 70 75 80 85 90 95 100

10.


0 2 4 6 8 10 12 14 16 18 20 22 24

11.


0 1 2 3 4 5 6 7 8 9 10

12.


0 1 2 3 4 5 6 7 8 9 10

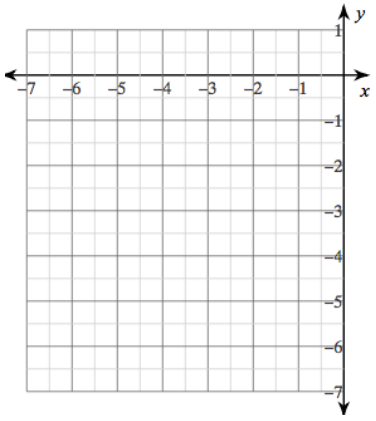
Name: _____

Graphing Quadratic Functions in Standard, Vertex, and Intercept Form

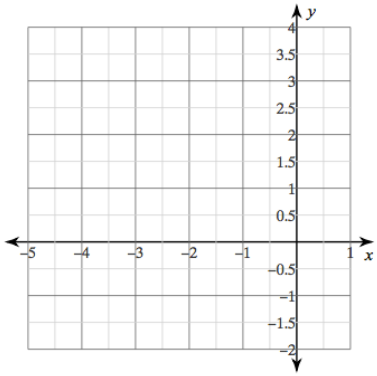
Directions: Graph each quadratic function.

Standard Form

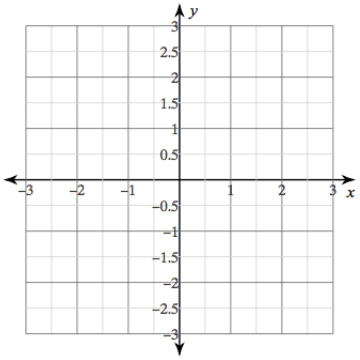
$y = -x^2 - 8x - 17$



$y = x^2 + 4x + 3$

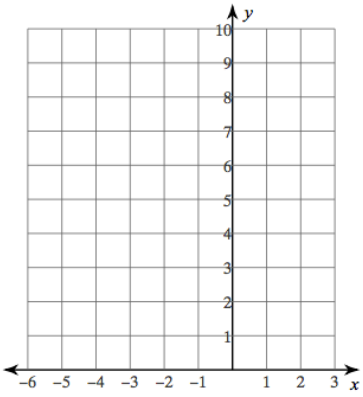


$y = x^2 + 2x - 1$

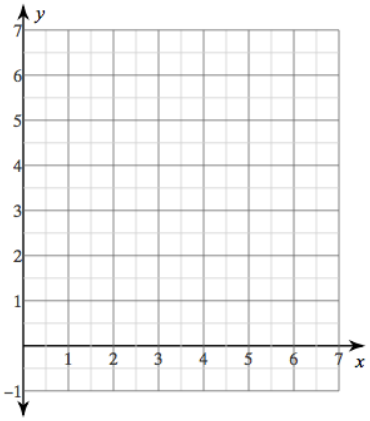


Vertex Form

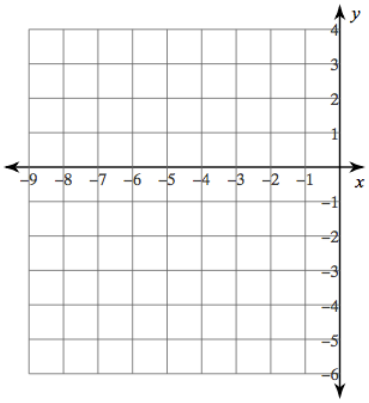
$y = (x + 3)^2 + 4$



$y = (x - 4)^2 + 1$

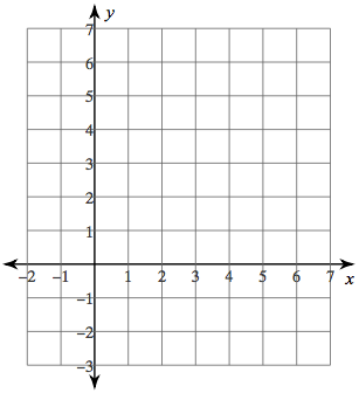


$y = -2(x + 4)^2 + 3$

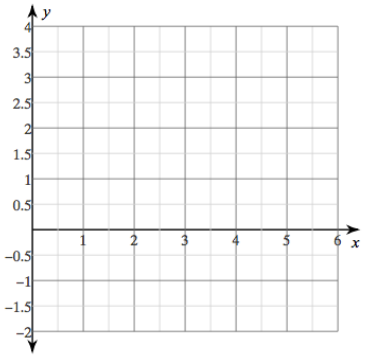


Intercept Form

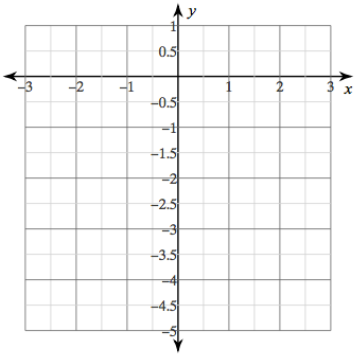
$y = 2(x - 5)(x - 3)$



$y = (x - 2)(x - 4)$



$y = (x + 3)(x - 1)$



Name:

Quadratics

Find the factored form, then solve for the roots of the given quadratics.

1. $x^2 + 10x + 9 = 0$

2. $x^2 - 49 = 0$

3. $x^2 - 12x + 27 = 0$

4. $x^2 - 2x - 24 = 0$

5. $x^2 - 11x - 60 = 0$

Solve for the roots of the given quadratics, then multiply to write in the quadratic in standard form.

6. $3x(x+9)=0$

7. $2(x-2)(x+2)=0$

8. $(x-2)(x+9)=0$

9. $(5x+1)(x-3)=0$

10. $(x-4)(x+4)=0$

Name: _____ Date: _____ Period: _____

Write the equation in exponential form.

_____1. $\log_9 3 = \frac{1}{2}$

_____2. $\log_5 \frac{1}{25} = -2$

_____3. $\log_w t = c$

Write the equation in logarithmic form.

_____4. $\frac{1}{2}^{-3} = 8$

_____5. $5^3 = 125$

_____6. $d^a = n$

Evaluate each logarithm. Each answer should be a <u>whole number</u>.

_____7. $\log_9 81$ _____8. $\log_5 125$ _____9. $\log_{\frac{1}{2}} \frac{1}{2}$

_____10. $\log_{12} 144$ _____11. $\log_6 1$ _____12. $\log_{\frac{2}{3}} \frac{4}{9}$

Evaluate each logarithm. Each answer should be <u>negative</u>.

_____13. $\log_9 \frac{1}{9}$ _____14. $\log_{\frac{1}{5}} 25$ _____15. $\log_{\frac{1}{3}} 27$

Evaluate each logarithm. Each answer should be a <u>fraction</u>.

_____16. $\log_{81} 9$ _____17. $\log_8 2$ _____18. $\log_{16} 4$

Evaluate each logarithm. Each answer should be a <u>negative fraction</u>.

_____19. $\log_8 \frac{1}{2}$ _____20. $\log_{\frac{1}{9}} 3$ _____21. $\log_{\frac{1}{8}} 2$

Evaluate each <u>common</u> logarithm.

_____22. $\log 1$ _____23. $\log 0.01$ _____24. $\log 1{,}000$

Evaluate each logarithm. Then, use the table below to match your answers to complete the riddle.

25. $\log_5 25$

26. $\log_2 8$

27. $\log_9 1$

28. $\log \frac{1}{10}$

29. $\log_{49} 7$

30. $\log_8 2$

31. $\log 10$

32. $\log_6 \frac{1}{36}$

33. $\log_3 81$

34. $\log_{25} \frac{1}{5}$

-2	$-\frac{1}{2}$	0	1	3	$\frac{1}{2}$	-1	2	4	$\frac{1}{3}$
E	E	G	A	E	I	M	E	T	R

What did the acorn say when he grew up?

_____	_____	_____	_____,	_____	_____	_____	_____	_____	_____
27	32	26	29	28	31	33	30	34	25

EXPONENTIAL FUNCTIONS
Graphic Organizer

EQUATIONS

$y = a(b)^x$

$y = 4(\frac{2}{3})^x$

a = _____

b = _____

Growth or Decay?

$y = 0.5(\frac{5}{2})^x$

a = _____

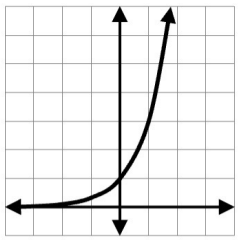
b = _____

Growth or Decay?

GRAPHS

a = y-intercept

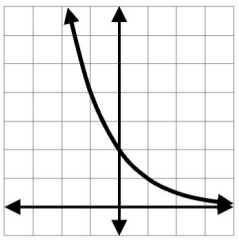
b = growth or decay rate $\frac{y_2}{y_1}$



a = _____

b = _____

Equation: _____



a = _____

b = _____

Equation: _____

TABLES

a = y-intercept (y when x = 0)

b = common ratio $\frac{y_2}{y_1}$

a = _____

b = _____

Equation: _____

X	Y
0	12
1	3
2	$\frac{3}{4}$
3	$\frac{3}{16}$

a = _____

b = _____

Equation: _____

X	Y
0	6
1	30
2	150
3	750

WORD PROBLEMS

a = initial value

b = growth or decay rate (at what **rate** is the situation increasing or decreasing by?)

Match the following word problems to their correct equation on the right.

_____ Patricia's car has a starting value of $20,000 and depreciates at a rate of 33% each year.

_____ There were 20,000 cases of the flu reported in January. It is expected that each month there will be a third of the cases as the previous month.

_____ Jenny made a $20,000 investment that is doing incredibly well. It is expected to triple each year.

_____ Ronny bought a highly sought-after vintage car for $20,000. The value of the car increases at a rate of 33% each year.

A. $y = 20{,}000(3)^x$

B. $y = 20{,}000(\frac{1}{3})^x$

C. $y = 20{,}000(1.33)^x$

D. $y = 20{,}000(0.67)^x$

Name:

Distance and Midpoint Map Activity

Use the map to answer the following questions. Give the unit distance and then convert your answers to miles for the distance problems. (Round to nearest tenth)

1. What is the distance between the point in Maine and Tennessee?

2. Find the distance between the point in North Dakota and Oklahoma.

3. Find the distance from the point in California to Kentucky.

4. What is the distance from the point in Washington to the bottom tip of Florida?

5. Find the distance from the point central Texas to the point in Utah. (Use decimal)

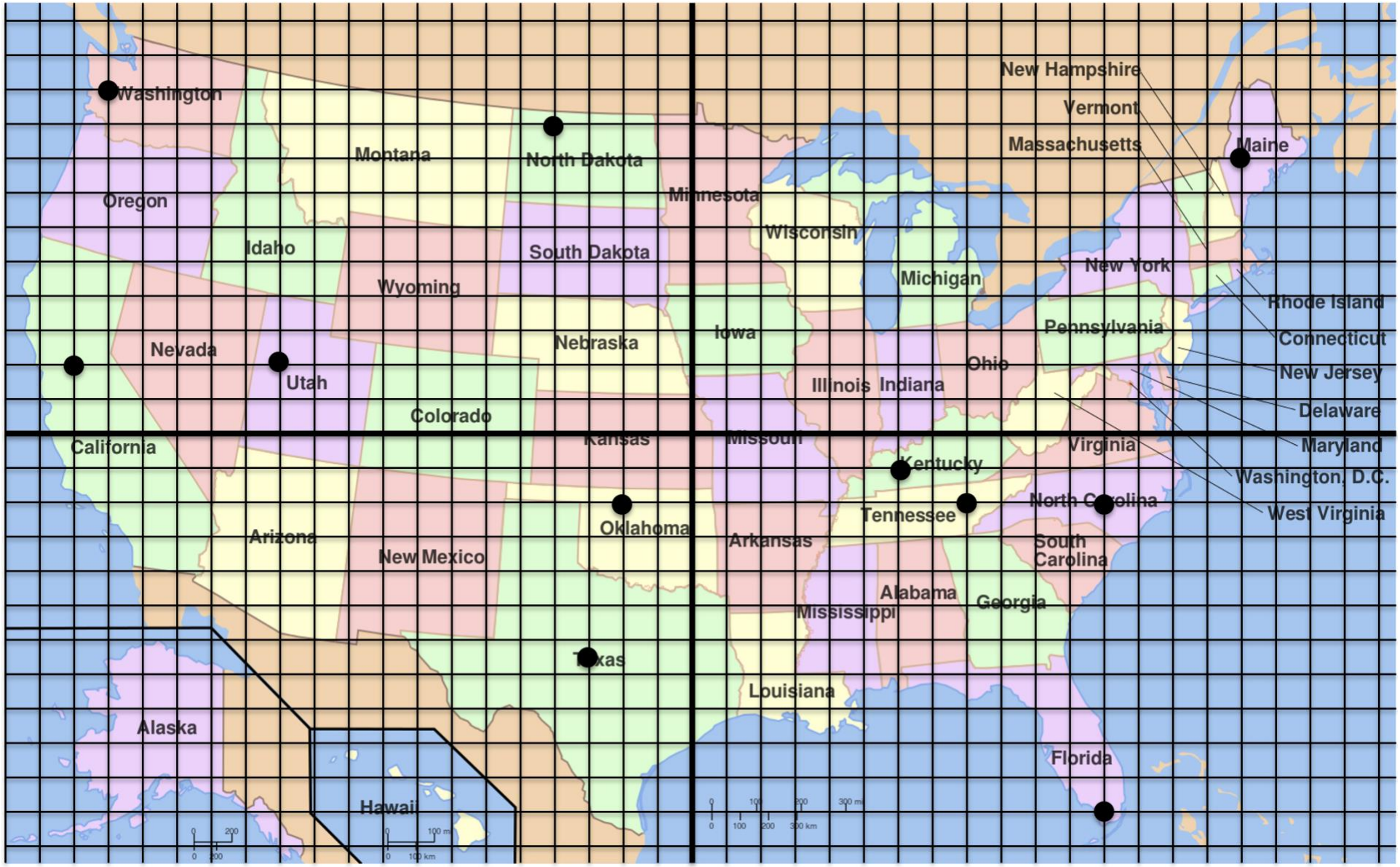
6. Find 2 more distances of you choice: write them coordinates of the point selected below and mark points on the map. Then calculate the distances.

7. Find the midpoint between Maine and California. What state does the midpoint lie in?

8. Find the midpoint between Washington and Kentucky. What state does the midpoint lie in?

9. Determine the midpoint between North Carolina and Utah. Then find the distance between North Carolina and the midpoint.

10. The point in Oklahoma is the midpoint between the point in Texas and the coordinates of a point in what other state? Give the coordinates and the state in which it lies.



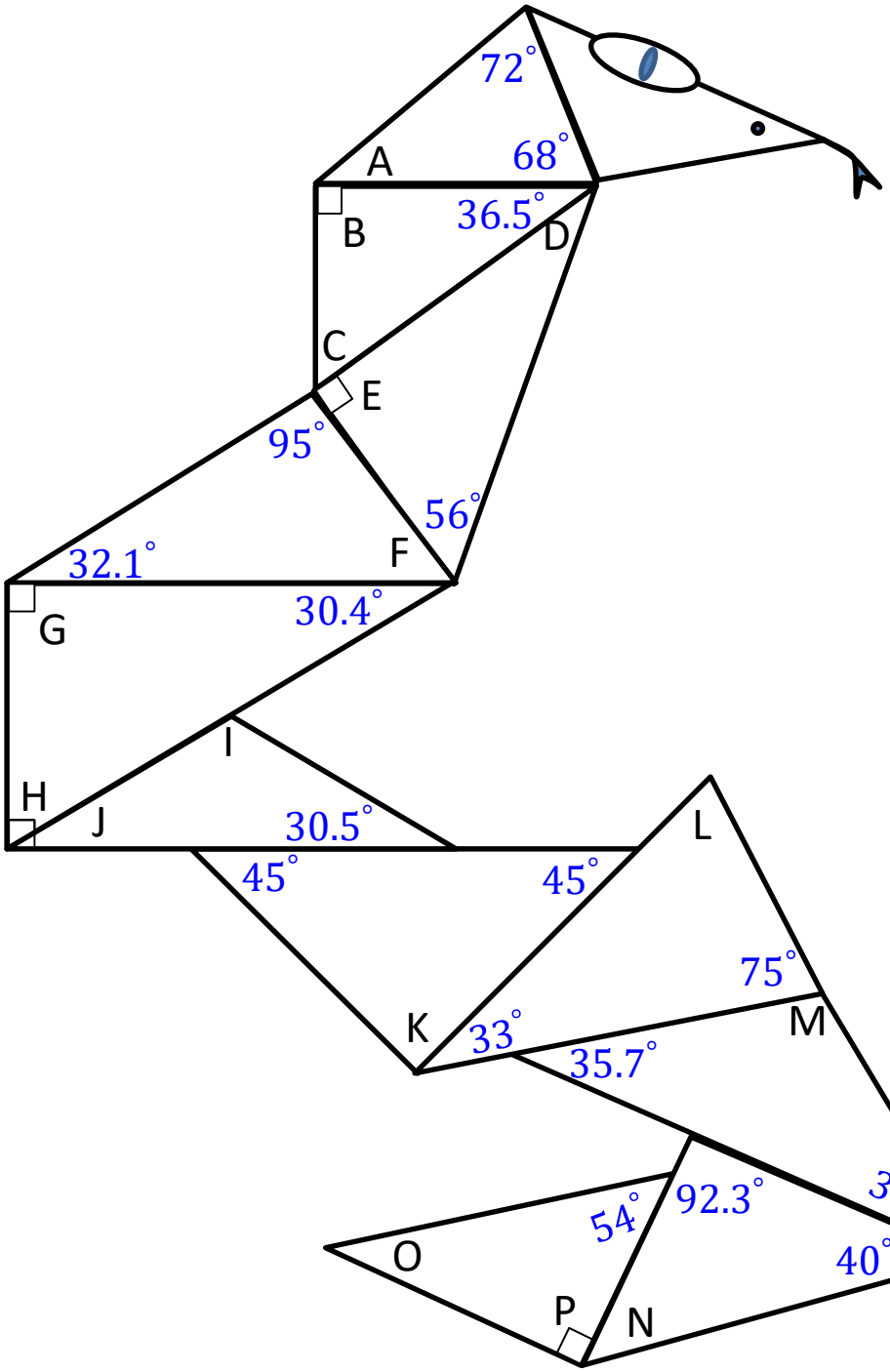
4 units ≈ 300 miles

Name:_____ Date:_____

Missing Angles in Triangles

The sum of the angles of any triangle is _____

Find all the missing angles in the triangles. Write each answer on the line provided beside the corresponding letter.



A _____

B _____

C _____

D _____

E _____

F _____

G _____

H _____

I _____

J _____

K _____

L _____

M _____

N _____

O _____

P _____

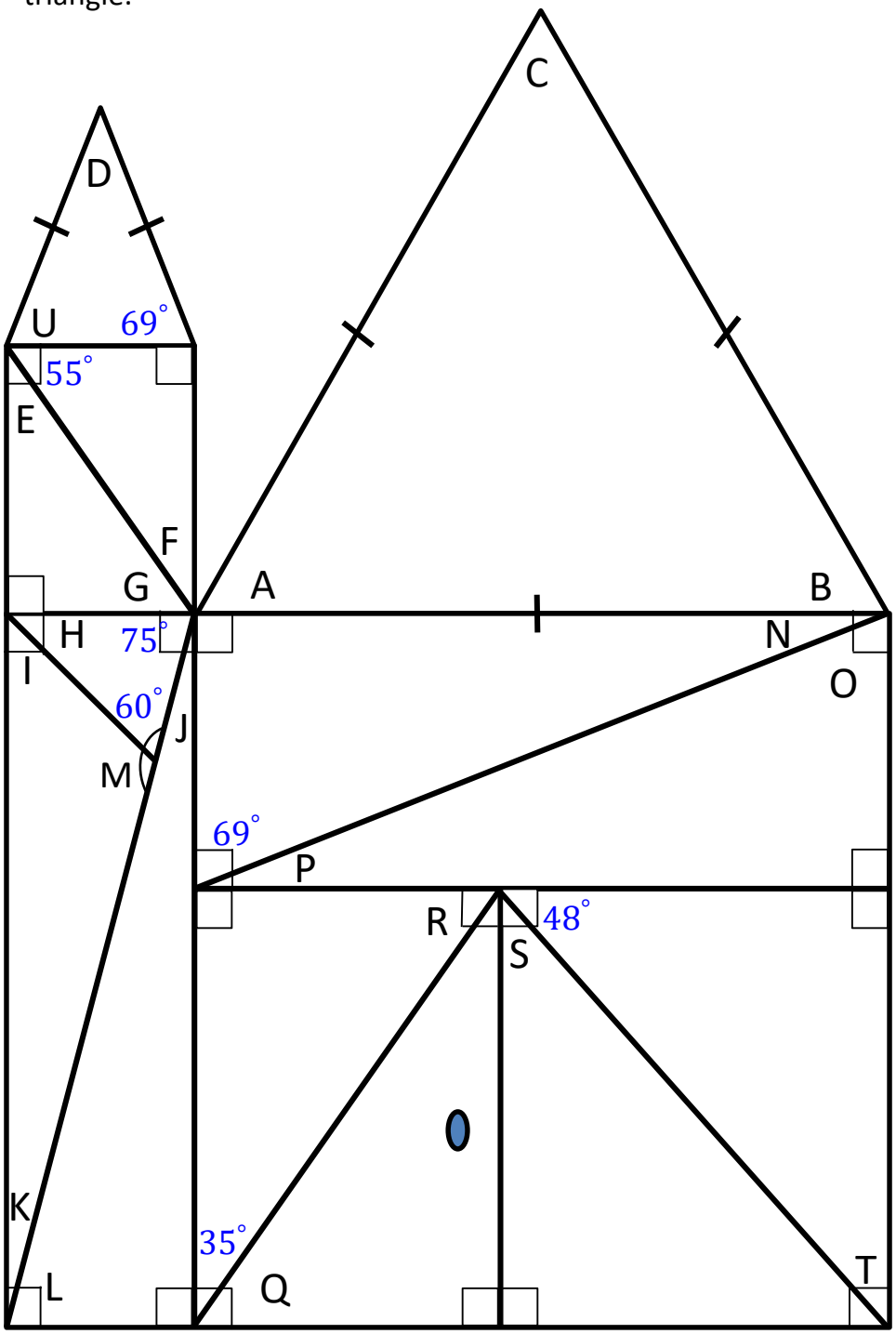
Name:_____ Date:_____

Missing Angles in Triangles

The sum of the angles of any triangle is _____

Find all the missing Angles in the triangles. Write each answer on the line provided beside the corresponding letter.

Notice that angle C is in an equilateral triangle and angle D is in an isosceles triangle.



A _____

B _____

C _____

D _____

E _____

F _____

G _____

H _____

I _____

J _____

K _____

L _____

M _____

N _____

O _____

P _____

Q _____

R _____

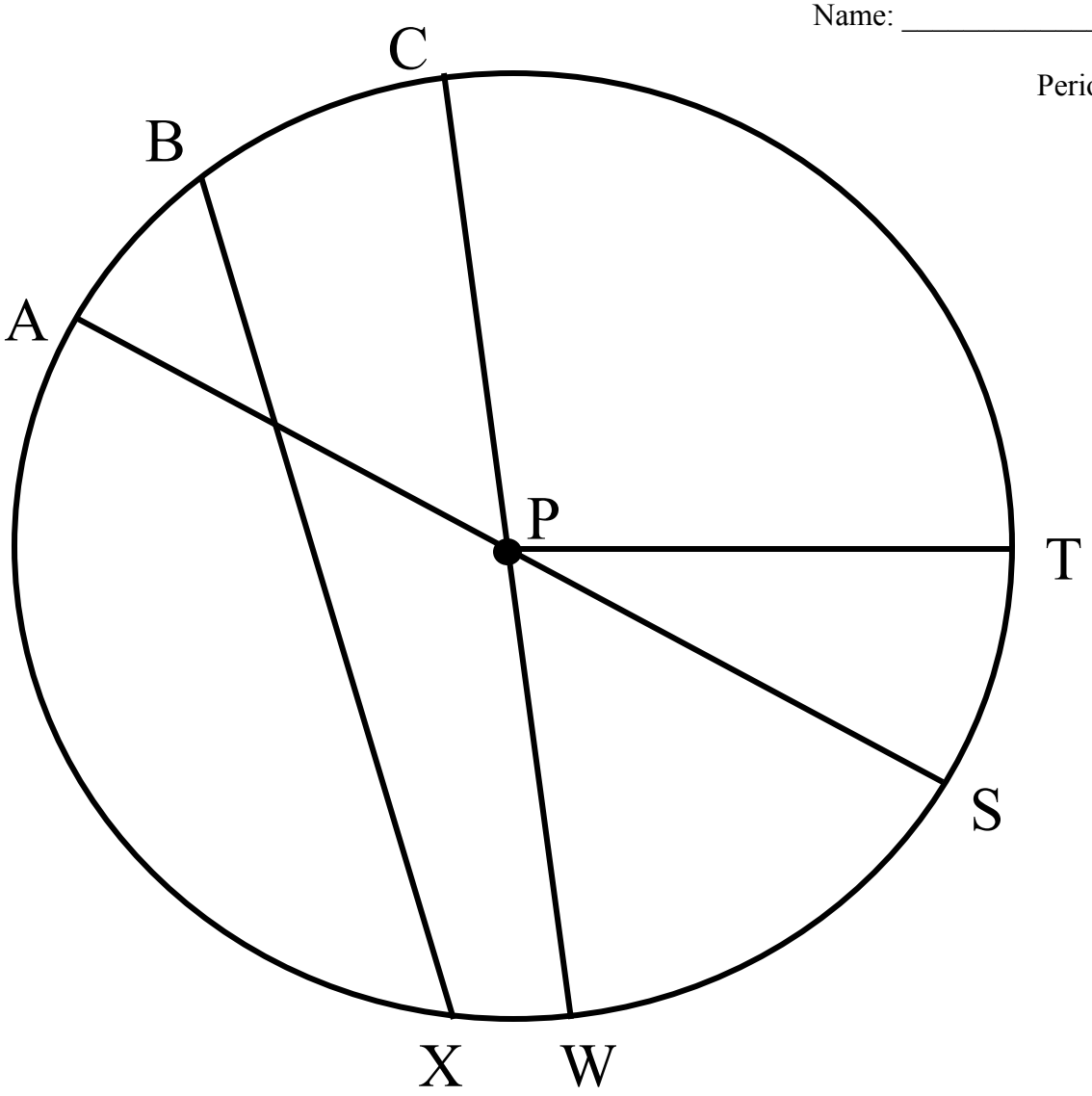
S _____

T _____

U _____

Name: _____

Period: _____



Use the circle above to write the name using proper notation for the following:

Center: _____

Radius: _____

Diameter: _____

Chord: _____

Arc: _____

Central Angle: _____

Semicircle: _____

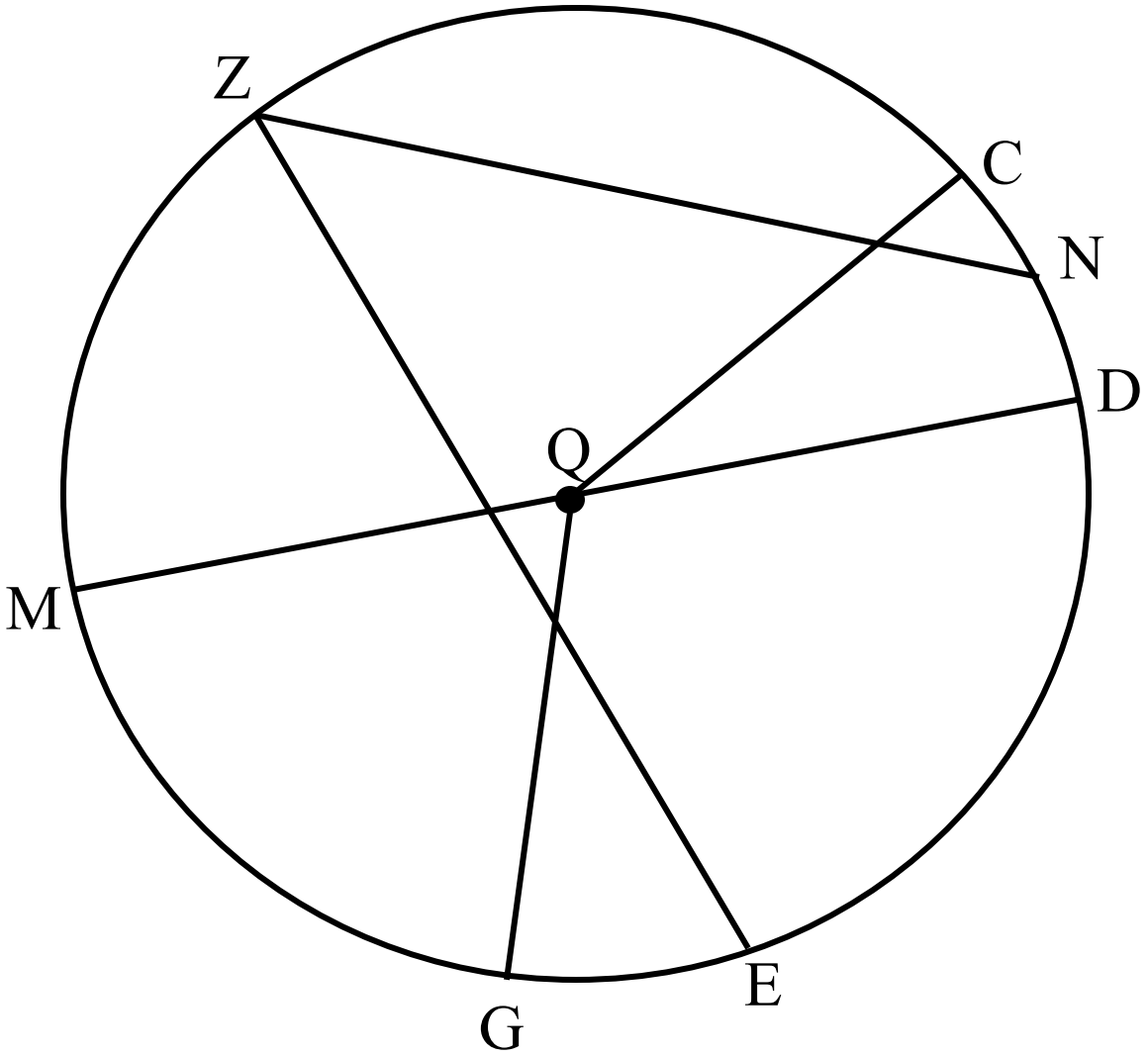
# of Radii: _____

Longest Chord: _____

Shortest Arc: _____

# of Diameters: _____

Central Obtuse Angle: _____



Use the circle above to write the name using proper notation for the following:

Center: _____

Semicircle: _____

Radius: _____

# of Radii: _____

Diameter: _____

Longest Chord: _____

Chord: _____

Shortest Arc: _____

Arc: _____

# of Diameters: _____

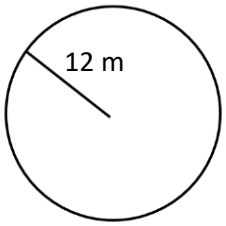
Central Angle: _____

Central Obtuse Angle: _____

Area and Circumference of Circles

Directions: Find the area and circumference of the circles below. Round your answer to the tenths place.

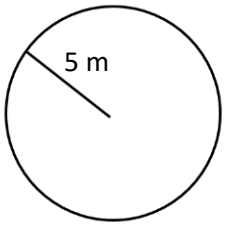
1.



A = _____

C = _____

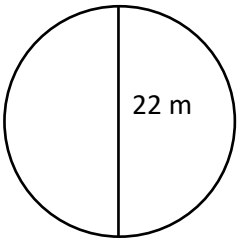
3.



A = _____

C = _____

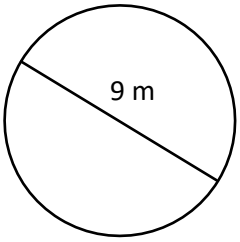
2.



A = _____

C = _____

4.



A = _____

C = _____

Name:

Area and Perimeter

Draw pictures to help you set up the problems. Label your answers and show all work!

1. An index card has a length of 7cm and a width of 4cm. What is its perimeter?

2. A triangular-shaped plot of land has a base of 15 meters and a height of 6 meters. What is the area?

3. The perimeter of a square is 220in. What is the length of each side?

4. A parallelogram has a base of 4cm and a height of 6cm. What is the area?

5. If one side of a stop sign measures 12 inches, what is its perimeter?

6. A trapezoid has bases of 7cm and 5cm, and a height of 3cm. What is its area?

7. A rectangular piece of cardboard has a length of 16 inches and an area of 19 square inches. What is its width?

8. A chessboard has an area of 144 square inches. What is its perimeter?

9. The area of a triangle is 63 square millimeters. If its height is 14 millimeters, what is the length of its base?

10. If the area of a parallelogram is 52.78 square centimeters and the height is 6.2cm, what is the length of the base?

11. A rectangular ice-skating rink measures 50ft by 75ft.
    a. If it costs $4.50 per foot to build a railing, how much would it cost to completely enclose the rink with a railing?

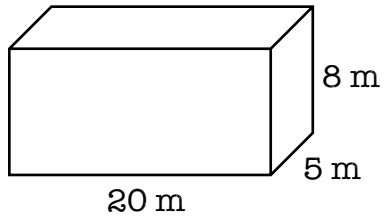
    b. If the skating rink allows one person for every 10 square feet of ice, how many people are allowed in the rink at one time?

Name: _____

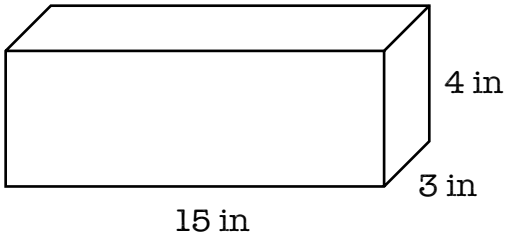
Volume and Surface Area Review Packet

Find the volume of each figure. Use 3.14 for pi and round to the hundredths place if necessary.

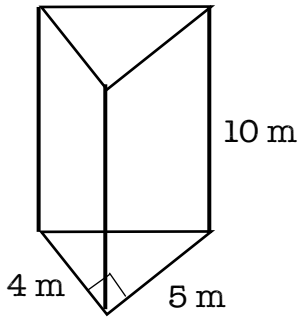
(1)



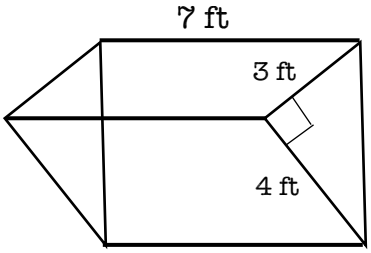
(2)



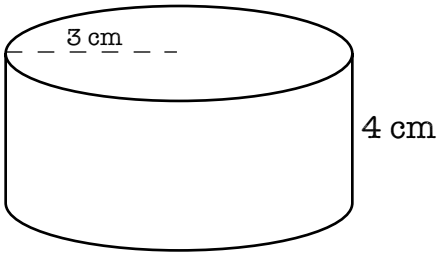
(3)



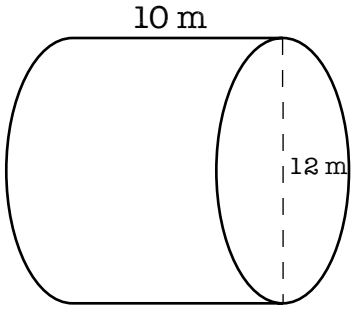
(4)



(5)

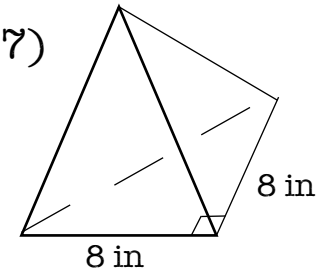


(6)



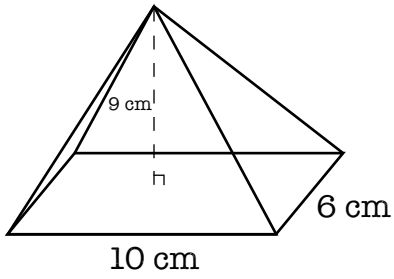
Find the volume of each figure. Use 3.14 for pi and round to the hundredths place if needed.

(7)

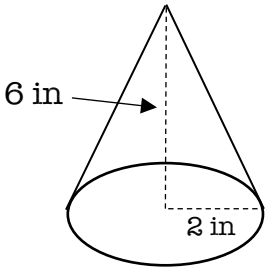


Height of pyramid = 6 in

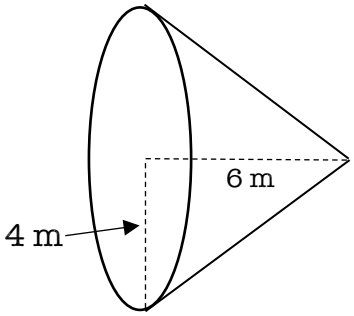
(8)



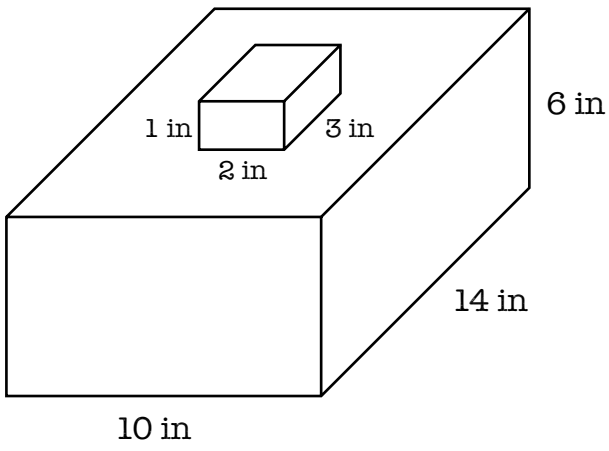
(9)



(10)

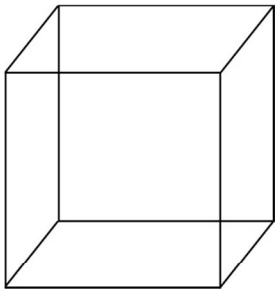


(11)



Name:_____ 3D Shapes Date:_____

Faces, corners, edges!

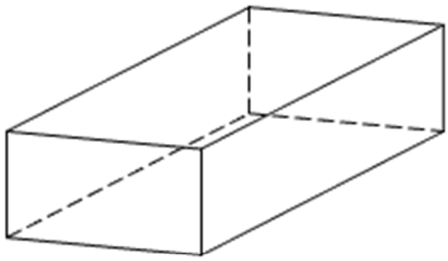


I am a _____.

I have _____ faces.

I have _____ corners.

I have _____ edges.

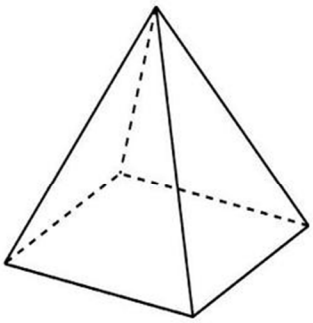


I am a _____.

I have _____ faces.

I have _____ corners.

I have _____ edges.

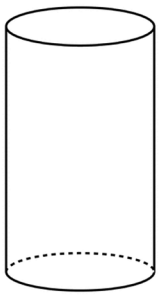


I am a _____.

I have _____ faces.

I have _____ corners.

I have _____ edges.

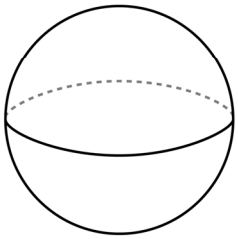


I am a _____.

I have _____ faces.

I have _____ corners.

I have _____ edges.

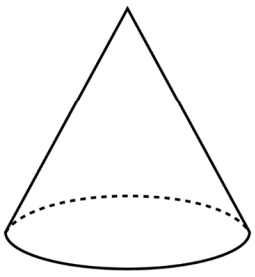


I am a _____.

I have _____ faces.

I have _____ corners.

I have _____ edges.



I am a _____.

I have _____ faces.

I have _____ corner.

I have _____ edges.

Name_____ Date_____

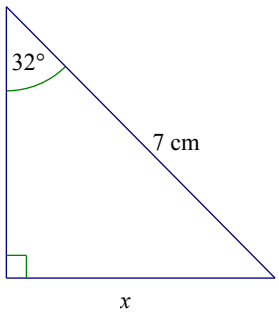
Trigonometry: Sine Ratio

Round all your answers to the nearest 3 significant figures (s.f.)

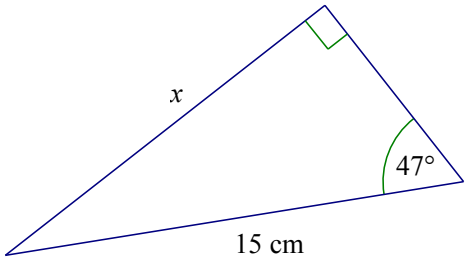
Find the missing sides

NOT DRAWN TO SCALE

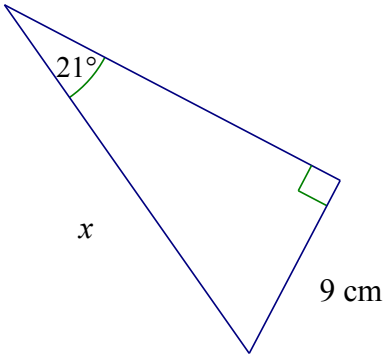
1.



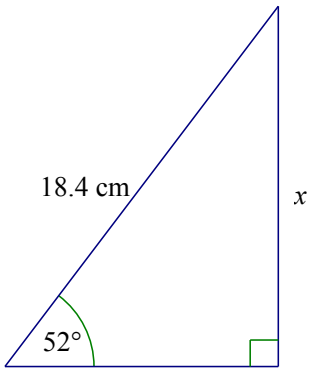
2.



3.

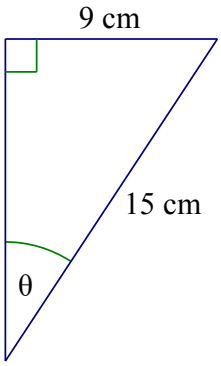


4.

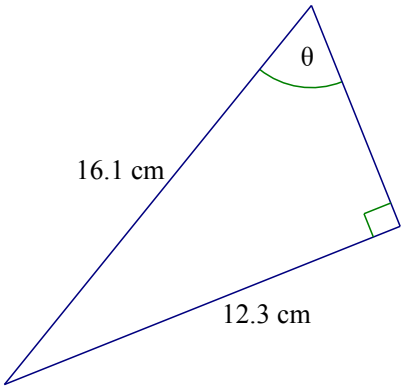


Find the missing angles

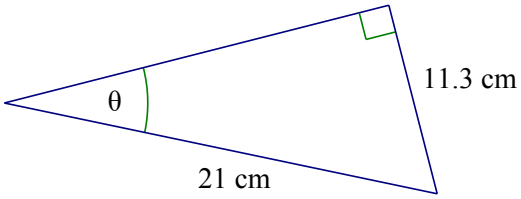
5.



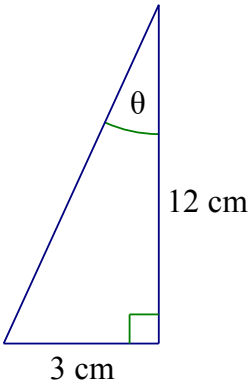
6.



7.



8.



Name_____ Date_____

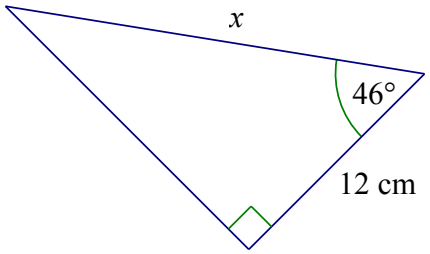
Trigonometry: Cosine Ratio

Round all your answers to the nearest 3 significant figures (s.f.)

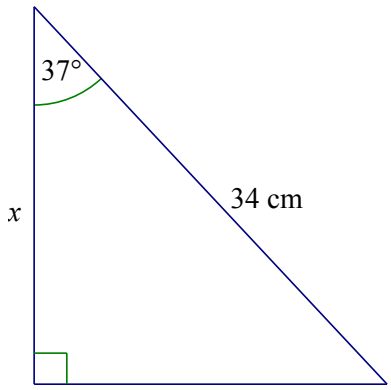
NOT DRAWN TO SCALE

Find the missing sides

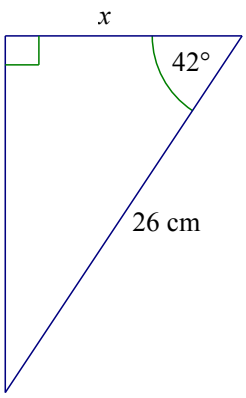
1.



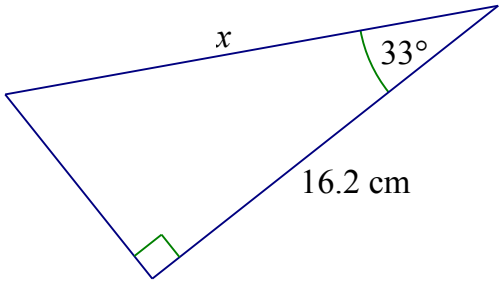
2.



3.



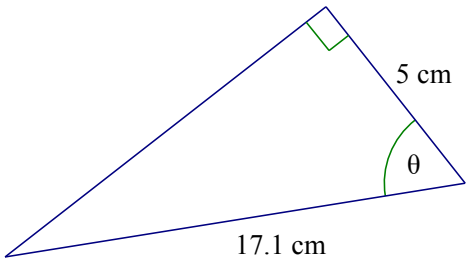
4.



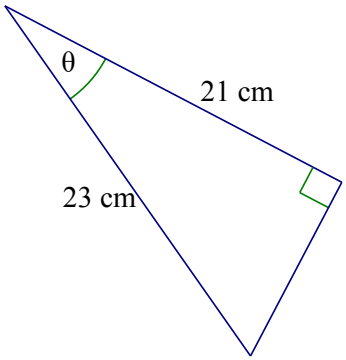
My Math Source

Find the missing angles

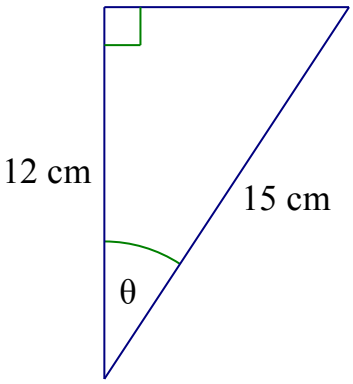
5.



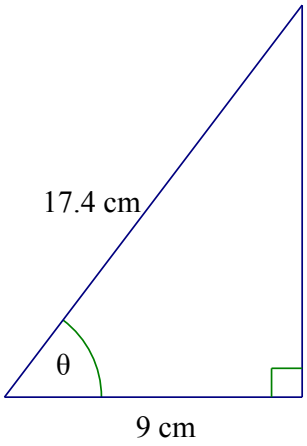
6.



7.



8.



Name_____ Date_____

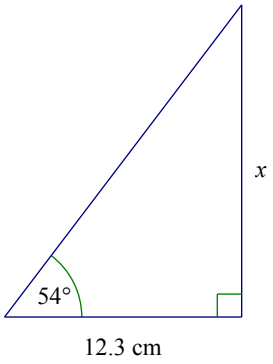
Trigonometry: Tangent Ratio

Round all your answers to the nearest 3 significant figures (s.f.)

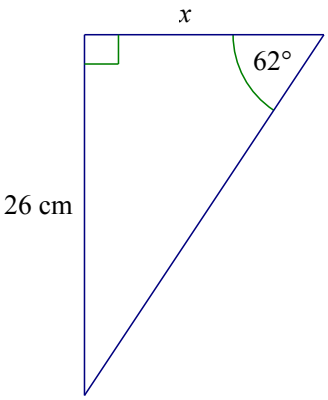
NOT DRAWN TO SCALE

Find the missing sides

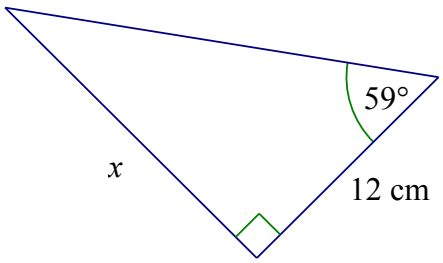
1.



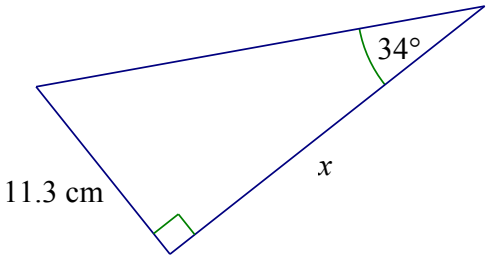
2.



3.



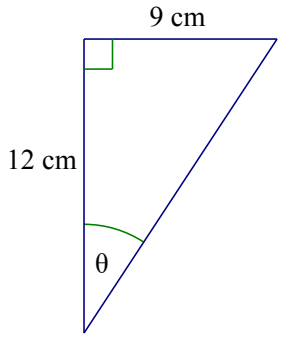
4.



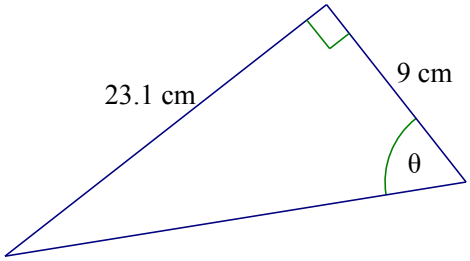
My Math Source

Find the missing angles

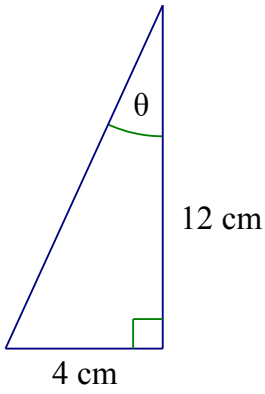
5.



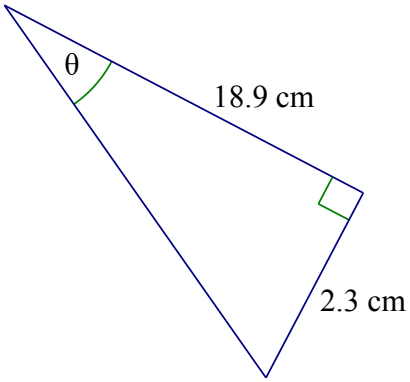
6.



7.



8.



11th Grade Video List

Operations with fractions
a. https://www.youtube.com/watch?v=PXC74Tm7yBY

Solve Expressions
a. https://www.youtube.com/watch?v=8NCwKUnIbRk

Simplify Algebraic Fractions
a. https://www.youtube.com/watch?v=WSQh4o3yu4I

Percent, Ratio, and Percent Change
a. https://youtu.be/MkpbtCRwcCE
b. https://www.youtube.com/watch?v=CT6IqIb7urs
c. https://www.youtube.com/watch?v=5nZEUpZX_P0

Proportions
a. https://www.youtube.com/watch?v=GhC60BmRO2Y

Metric Conversion
a. https://www.youtube.com/watch?v=uHaKyNplino

Degree and Radians Conversion
a. https://youtu.be/O3jvUZ8wvZs
b. https://youtu.be/z0-1gBy1ykE

Data Analysis
a. https://www.youtube.com/watch?v=B1HEzNTGeZ4
b. https://www.youtube.com/watch?v=NcgRa0uotXs
c. https://www.youtube.com/watch?v=8ODFBfEIX_k

Solving multi-step Equations
a. https://www.youtube.com/watch?v=oIVpjrD4YvQ
b. https://www.youtube.com/watch?v=leNCHdO5Lec
c. https://www.youtube.com/watch?v=76E9K3JzjDM

Graphing Linear Equation
a. https://www.youtube.com/watch?v=ruTcNElXdzQ

Linear Equations and Rates of Change
a. https://www.youtube.com/watch?v=dfSejN8TJNY
b. https://www.youtube.com/watch?v=qPJzMboAjI8

Rearrange Equations
a. https://www.youtube.com/watch?v=5xcMQlshSJM
b. https://www.youtube.com/watch?v=5xcMQlshSJM

System of Equations
a. https://www.youtube.com/watch?v=oKqtgz2eo-Y

b. https://www.youtube.com/watch?v=nok99JOhcjo
c. https://www.youtube.com/watch?v=SpkvJ7N2Adc

Solve Inequalities on a Number Line
a. https://www.youtube.com/watch?v=S_GxAF6xV8Q

Inequality Notation
a. https://www.youtube.com/watch?v=V6Tw_mUmq6o
b. https://www.youtube.com/watch?v=LQhhGqk7C88
c. https://www.youtube.com/watch?v=4W5KYlRz2fM

Graphing Quadratic Functions
a. https://www.youtube.com/watch?v=jGT35UcmjAc

Factoring and solving quadratic equations
a. https://www.youtube.com/watch?v=qeByhTF8WEw

Logarithms
a. https://www.youtube.com/watch?v=f0C1KL7GkqY
b. https://www.youtube.com/watch?v=aD8HGqmD39Y

Exponential Functions
a. https://www.youtube.com/watch?v=tAaDItpC8OI

Distance and Midpoint
a. https://www.youtube.com/watch?v=e7d0wbDCwjk

Triangle Sum Theorem
a. https://www.youtube.com/watch?v=nVFzV4-uOnc

Parts of Circle
a. https://www.youtube.com/watch?app=desktop&v=SULeam8jQfE

Circumference and Area of Circle (do not use 3.14, please use π button on your calculator)
a. https://www.youtube.com/watch?v=JC2kRM3jTOo
b. https://www.youtube.com/watch?v=_E0C5ECDS0U

Area and Perimeter
a. https://www.youtube.com/watch?v=AAY1bsazcgM
b. https://www.youtube.com/watch?v=lsx1W2zuwHM
c. https://www.youtube.com/watch?v=CAXJh2avnu8

Volume and Surface Area
a. https://www.youtube.com/watch?v=jREM6POLQUM
b. https://www.youtube.com/watch?v=i31InzuKabY
c. https://www.youtube.com/watch?v=dNDbRbHNXFQ
d. https://www.youtube.com/watch?v=JUgRPUSxoEc
e. https://www.youtube.com/watch?v=PgxIad4c1ZI
f. https://www.youtube.com/watch?v=e7qgvHbdBuw

g. https://www.youtube.com/watch?v=JQD__LQTrYA
h. https://www.youtube.com/watch?v=KhObCvV73go

3D Shape Terminology

a. https://www.youtube.com/watch?v=e2Dj1LsYM84

Trigonometry Ratios

a. https://www.youtube.com/watch?v=jUSxUk9BX-c