



CHRISTOPHER COLUMBUS  
A Marist Brothers High School 1958

## Summer Assignment Mathematics Students entering Algebra I Honors

**Due Date: First day of class**  
**2026-2027**

### **Directions:**

- Print the document
- Complete this assignment **without a calculator**.
- Show all work neatly.
- If the concepts in a particular section are more challenging, you may want to seek additional resources for extra practice.

### **Grading and Mastery Testing:**

- The summer assignment is due the first day during class.
- Late assignments will be accepted but will be penalized based on the number of days the assignment is late.
- The first two days of class students may ask questions and the teacher will review summer assignments.
- At the end of the first week students will be expected to take a mastery test that will consist of problems similar to those in the summer assignment.
- Any student who does not earn a grade of at least 80% on the mastery test will be expected to do remediation problems for the first quarter along with the required Algebra I Honors coursework.

### **Required Content:**

- Convert from fraction, decimal, and percent
- Comparing Numbers
- Ordering numbers from least to greatest
- Add/subtract/multiply/divide real numbers without a calculator
- Translate a verbal model into an algebraic expression or equation
- Evaluating Expression
- Solve one and two step equations
- Perimeter, Area and Volume
- Graphing on coordinate plan
- complementary and supplementary angles

### **Note:**

Remember Algebra I Honors is a fast-paced rigorous course geared to prepare you to continue on the honors track. We expect that you meet our expectations, that you will come to class prepared, with homework done, and ready to learn each day.

***I look forward to meeting you in August.***

☺ *Your Algebra I Honors Teacher* ☺

## Convert Fraction, Decimal, Percent

1. Fill in the missing number. Simplify fractions

Fraction	Decimal	Percent
$\frac{1}{2}$		
$\frac{3}{4}$		
	0.6	
		86%
	0.25	
		70%
$\frac{7}{10}$		
	0.9	

## Comparing Numbers and Ordering Numbers from Least to Greatest

Tell which number is greater. ( $=, >, <, \leq, \geq$ )

2.  $0.9$  \_\_\_\_  $95\%$

3.  $20\%$  \_\_\_\_  $0.02$

4.  $\frac{37}{50}$  \_\_\_\_  $37\%$

5.  $50\%$  \_\_\_\_  $\frac{13}{25}$

6.  $0.086$  \_\_\_\_  $86\%$

7.  $76\%$  \_\_\_\_  $0.67\%$

8.  $60\%$  \_\_\_\_  $\frac{5}{8}$

9.  $0.14$  \_\_\_\_  $140\%$

Use a number line to order the numbers from least to greatest.

10.  $38\%$ ,  $\frac{8}{25}$ ,  $0.41$

11.  $2.62$ ,  $2\frac{2}{5}$ ,  $26.8\%$ ,  $271\%$

12.  $\frac{87}{200}$ ,  $0.44$ ,  $43.7\%$ ,  $\frac{21}{50}$

## Add/subtract/multiply/divide real numbers-Show all work to earn credit

Evaluate each expression.

13.  $-3 + 3$

14.  $5 + 4 - -3 - -2$

15.  $1 + - 8 - 5 - 7$

Find the

16.  $-15 \div -5$

17.  $\frac{-10}{7} \div \frac{4}{5}$

18.  $\frac{3}{2} \div \frac{15}{10}$

Find each product.

19.  $-10 \cdot 4$

20.  $-\frac{9}{7} \cdot -\frac{11}{7}$

21.  $-\frac{1}{3} \cdot \frac{4}{3}$

**Translate a verbal model into an algebraic expression or equation**

22. A number increase by 9, all multiplied by 2

23. A number multiplied by 10 increased by 7

24. A number times 2 minus 4

25. A number multiplied by 6 subtracted by 2

26. A number added to 10, all divided by 6

27. A number over 3 added to 9 equals 7

**Evaluating Expressions- Show all work to earn credit**

Replace each variable with its given value and simplify. Evaluate each of the following expression for the given values of the variables.

$a = 5$

$b = -2$

$c = 0$

$d = -4$

$e = 1$

$f = 3$

28.  $3a + 4e$

29.  $|a - f| + |f - a|$

30.  $2(d - 2)$

31.  $\frac{2b-4d}{3}$

32.  $b^2 - 2df$

33.  $5a + 6d - \frac{bf}{6}$

**Solving equations-Show all work to earn credit**

Solve each equations

34.  $-6 - n = -19$

35.  $-6 = x - (-14)$

36.  $\frac{-7+n}{13} = -2$

37.  $-2 = -3 + \frac{n}{15}$

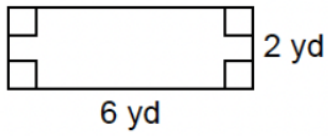
38.  $\frac{n}{9} - = -2$

39.  $-3 = 3 - 3b$

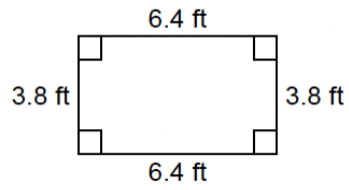
**Perimeter, Area, and Volume-Show all work to earn credit**

Find the perimeter.

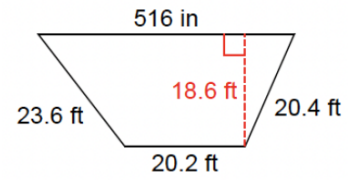
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41.

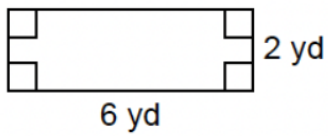


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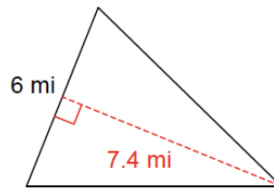


Find the area.

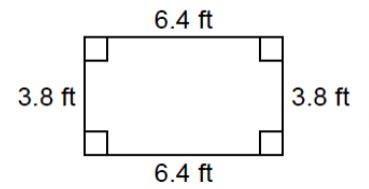
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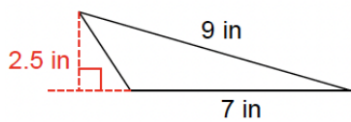
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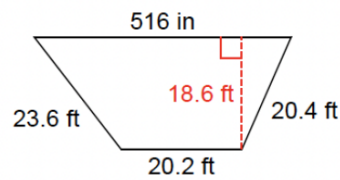
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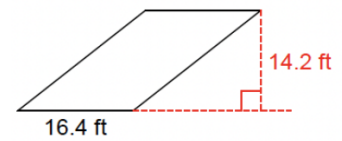
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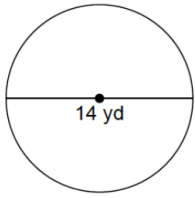
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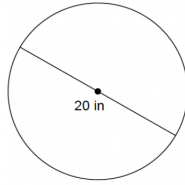
48.



49.



50.



Find the radius of each circle.

51.  $\text{area} = 169\pi \text{ in}^2$

52.  $\text{area} = 144\pi \text{ ft}^2$

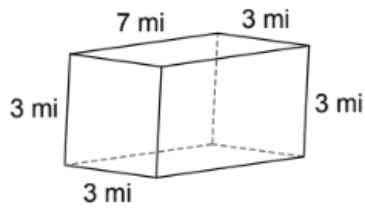
Find the diameter of each circle

53.  $\text{area} = 9\pi \text{ m}^2$

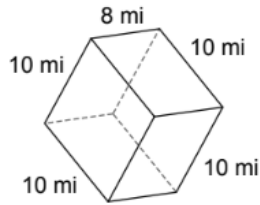
54.  $\text{area} = 94\pi \text{ yd}^2$

Find the volume.

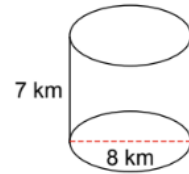
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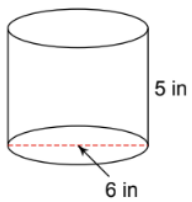
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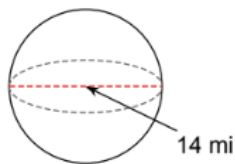
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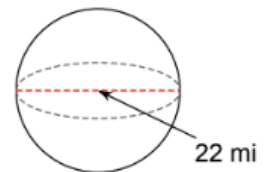
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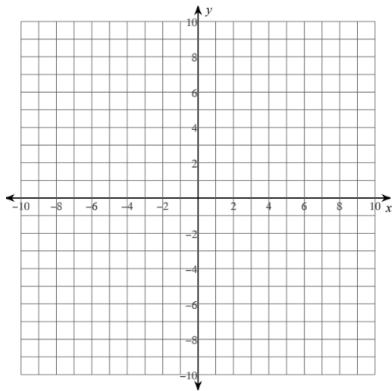
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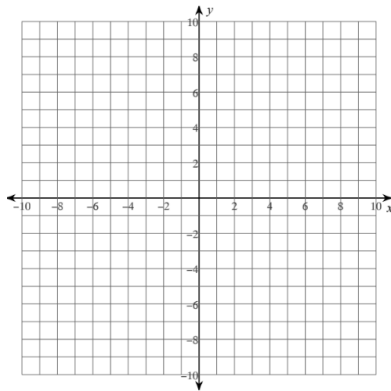
## Coordinate plane

Plot each point on the coordinate plan.

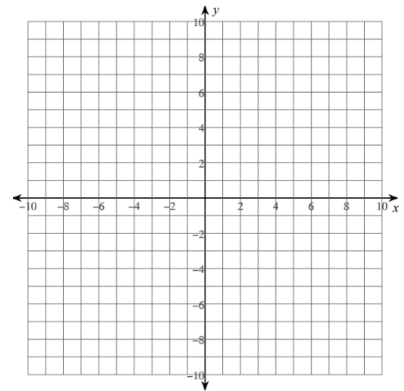
61.  $(4,-6)$



62.  $(-3,2)$

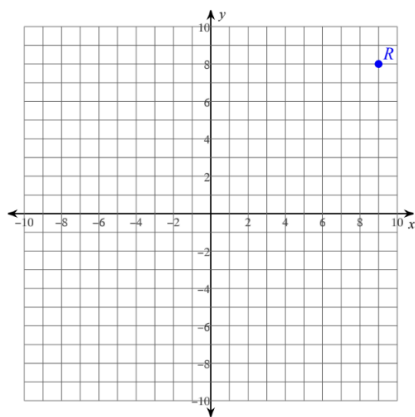


63.  $(-3,-3)$

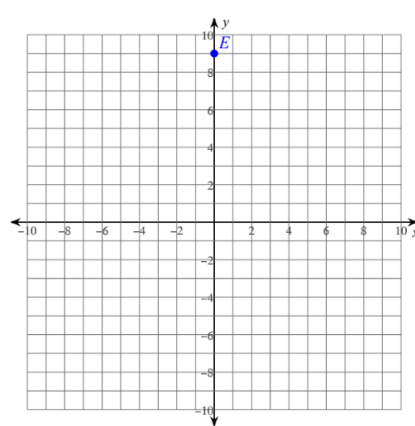


State the coordinate for each point

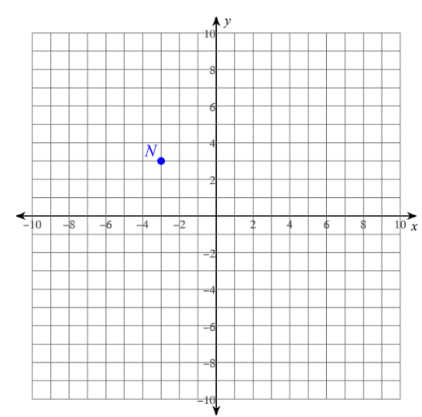
64.



65.



66.



State the quadrant or axis each point lies on.

67.  $(-2,10)$

68.  $(-3,-5)$

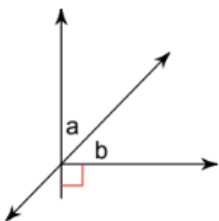
69.  $(-10,0)$

70.  $(0, 5)$

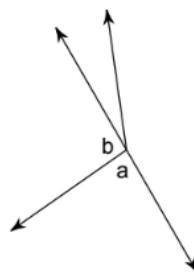
## Complementary and supplementary Angles- Show all work

Name the relationship complementary or supplementary.

71.

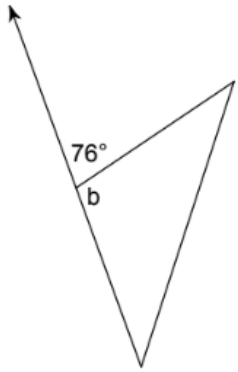


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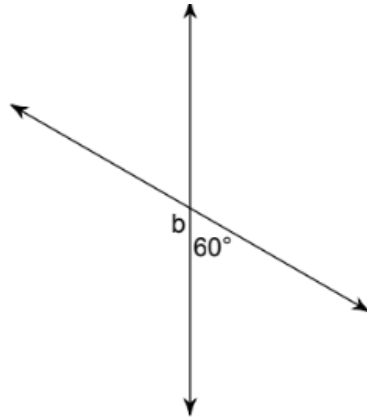


Find the measure of angle  $b$ .

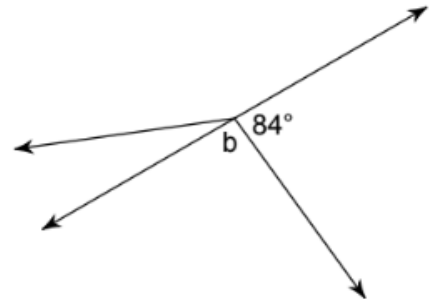
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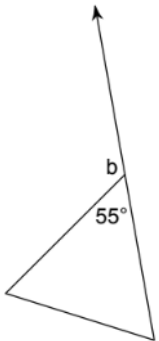
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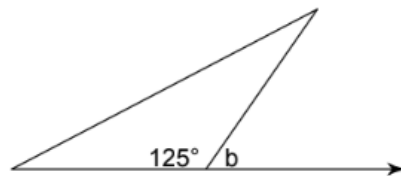
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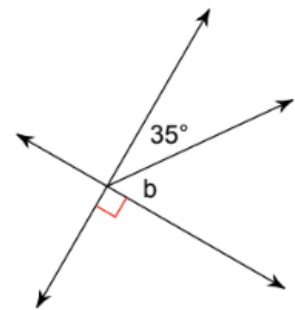
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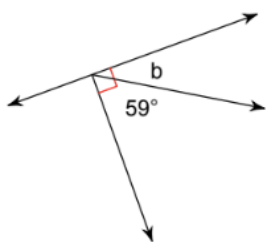
77.



78.



79.



80.

