

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## Worksheet 5.R: Introduction to Geometry Review | Chapter 5

A. For each problem below, draw a diagram (picture) and solve.

*Learning Goal: I can find the missing side of a right triangle using the Pythagorean Theorem. (8.G.7, 8.EE.2)*

1. A triangle has legs of length 9 meters and 40 meters. What is the length of the hypotenuse?

2. Michelle is standing 12 feet from a tree. The distance from her feet to the top of the tree is 37 feet. How tall is the tree?

3. What is the perimeter of the triangle with legs that are 8 and 15 inches long?

4. Claire threw her textbook on the ground. It landed 13 inches away from her feet. If Claire is 63 inches tall, how far away is the textbook from the top of her head?

*Learning Goal: I can identify right triangles using the Pythagorean Theorem. (8.G.7, 8.EE.2)*

5. Laura claims that her triangle is a right triangle. Its side-lengths are 13, 84, and 85. Was she correct?

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*Learning Goal: I can find the distance between two ordered pairs on the coordinate plane. (8.G.8, 8.EE.2)*

6. Find the distance between points M(-4, 6) and N(10, -5). Round to the nearest tenth if necessary.

7. Find the distance between A(5.5, 0) and B(2.75, 4.5). Round to the nearest tenth if necessary.

8. An archaeologist at a dig sets up a coordinate system using string. Two similar artifacts are found—one at position (1, 4) and the other at (5, 2). How far apart were the two artifacts? Round to the nearest tenth of a unit if necessary.

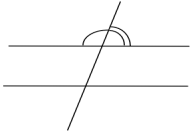
9. Bryce is looking at a map of a theme park. The map is laid out in a coordinate system. Bryce is at (2, 3). The roller coaster is at (7, 8), and the water ride is at (9, 1). Is Bryce closer to the roller coaster or the water ride?

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## Worksheet 5.R: Introduction to Geometry Review | Chapter 5

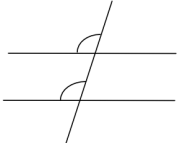
**B. Fill in the blanks with the matching vocabulary term. Then write the definition of the new vocabulary term.**

*Learning Goal: I can classify angles as interior, exterior, vertical, alternate interior, alternate exterior, and corresponding angles.*

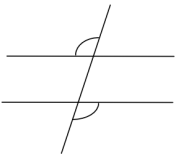


*Example:*

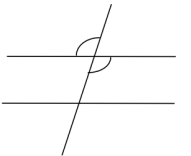
Supplementary Angles: Supplementary angles are angles that have a sum of 180 degrees.



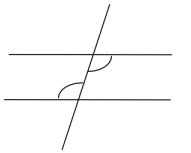
1. \_\_\_\_\_



2. \_\_\_\_\_



3. \_\_\_\_\_



4. \_\_\_\_\_

**C. Classify each pair of angles appropriately using the picture below.**

1.  $\angle 1$  and  $\angle 8$

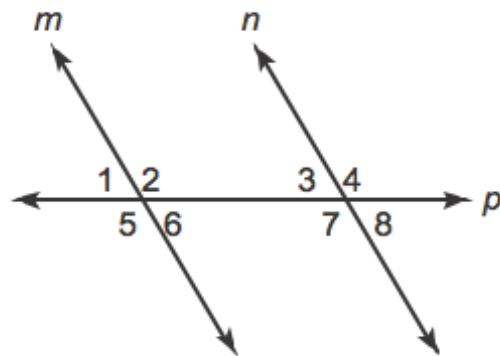
2.  $\angle 5$  and  $\angle 7$

3.  $\angle 3$  and  $\angle 6$

4.  $\angle 2$  and  $\angle 5$

5.  $\angle 2$  and  $\angle 7$

6.  $\angle 4$  and  $\angle 8$



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## Worksheet 5.R: Introduction to Geometry Review | Chapter 5

D. If  $m\angle 4 = 65^\circ$ , find each given angle measure. How do you know this? **Justify.**

*Learning Goal: I can find missing measures of angles formed by parallel lines and transversals. (8.G.5)*

1.  $m\angle 8$

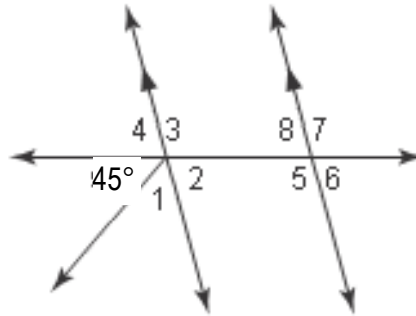
2.  $m\angle 5$

3.  $m\angle 2$

4.  $m\angle 1$

5.  $m\angle 6$

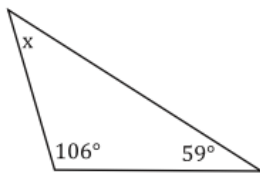
6.  $m\angle 7$



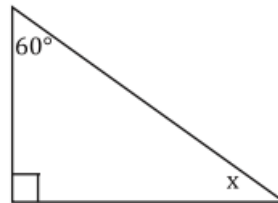
E. Find the missing angle measure in each of the following problems.

*Learning Goal: I can find missing angles of triangles. (8.G.5)*

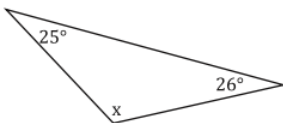
1.



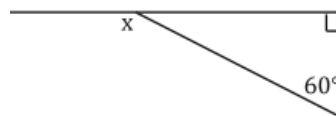
2.



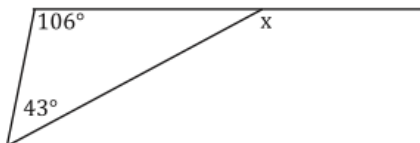
3.



4.



5.



6.

A triangle has angles measuring  $23^\circ$  and  $62^\circ$ . What is the measure of the third angle?

7. What is the sum of the angles in a triangle?

8. What does "congruent" mean? (You may look this up in your textbook.)