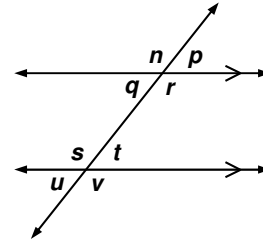


More With Angle Relationships: Classwork

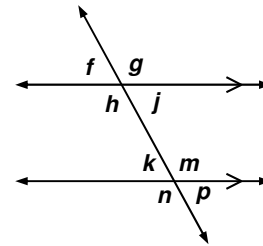
1. The diagram on the right shows two parallel lines intersected by a transversal.

- a. $\angle r$ and _____ are vertical angles.
- b. $\angle p$ and _____ are alternate exterior angles.
- c. $\angle u$ and _____ are corresponding angles.
- d. $\angle s$ and _____ are alternate interior angles.
- e. $\angle t$ and _____ are corresponding angles.
- f. Suppose $m\angle n = 115^\circ$. Find the measures of all the other angles.

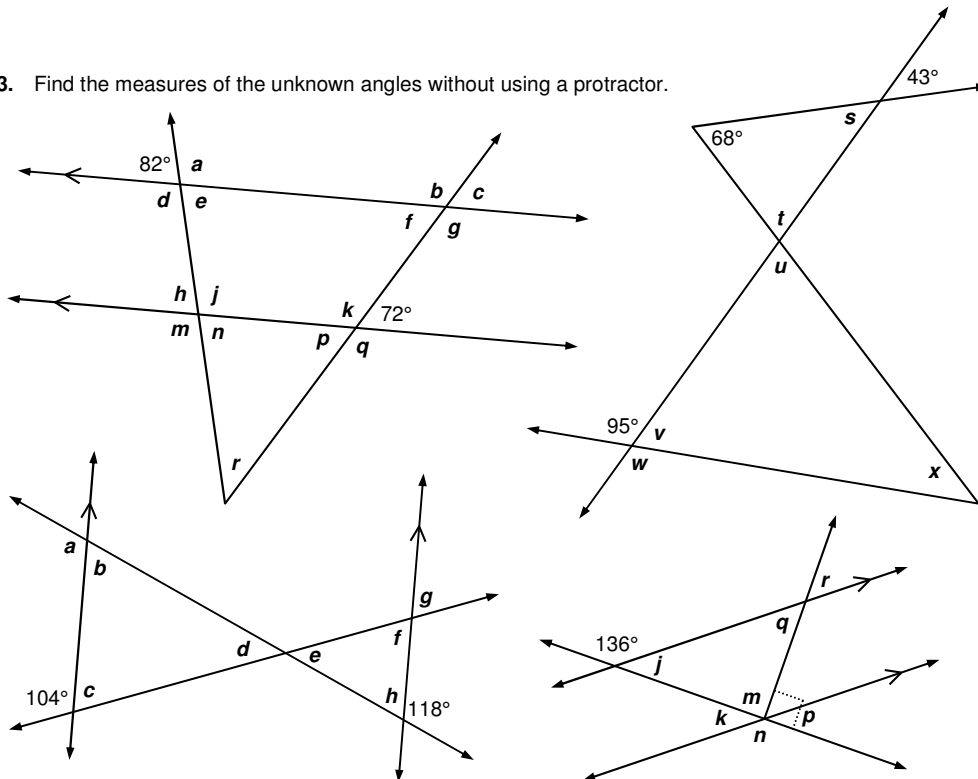


2. The diagram on the right shows two parallel lines intersected by a transversal. Use geometry vocabulary to complete the following statements.

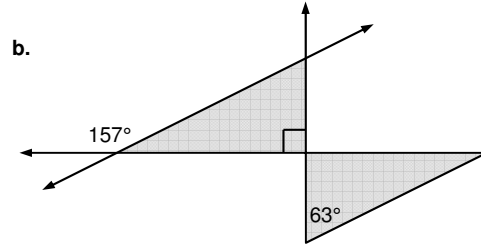
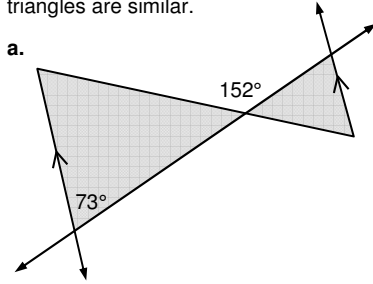
- a. $\angle g$ and $\angle m$ are...
- b. $\angle j$ and $\angle k$ are...
- c. $\angle f$ and $\angle p$ are...
- d. $\angle h$ and $\angle n$ are...
- e. $\angle k$ and $\angle p$ are...
- g. Suppose $m\angle j = 73^\circ$. Find the measures of all the other angles.



3. Find the measures of the unknown angles without using a protractor.

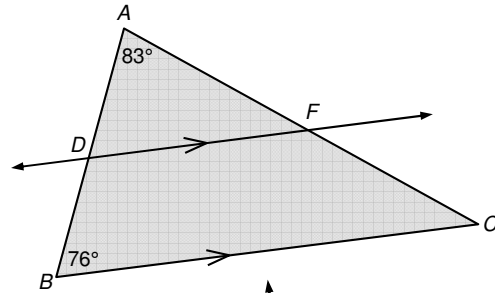


4. Find the interior angle measures for each pair of shaded triangles, then state whether or not the triangles are similar.



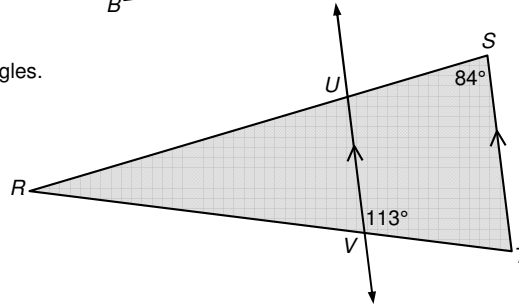
5. a. Find the measures of all the interior angles.

- b. Is $\triangle ABC$ similar to $\triangle ADF$? Explain.

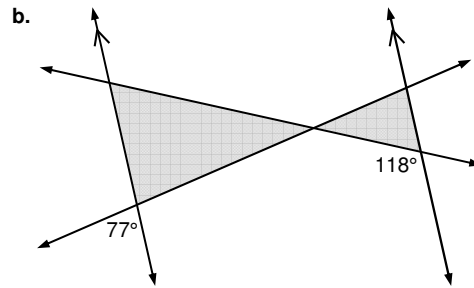
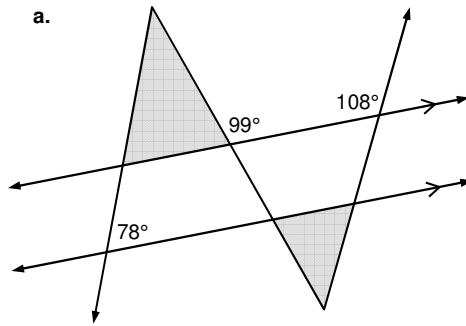


6. a. Find the measures of all the interior angles.

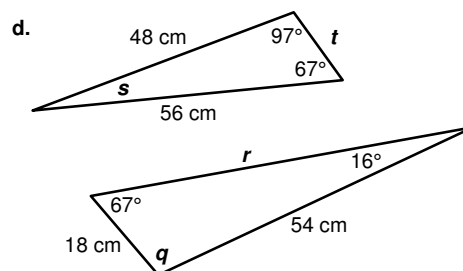
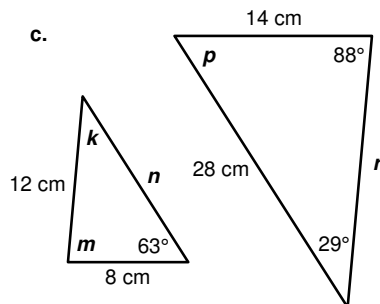
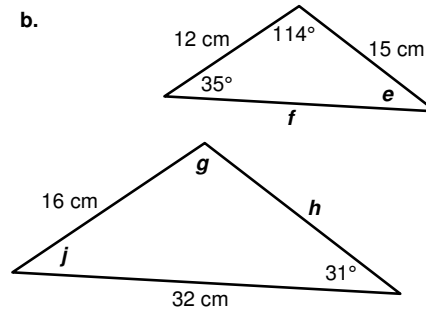
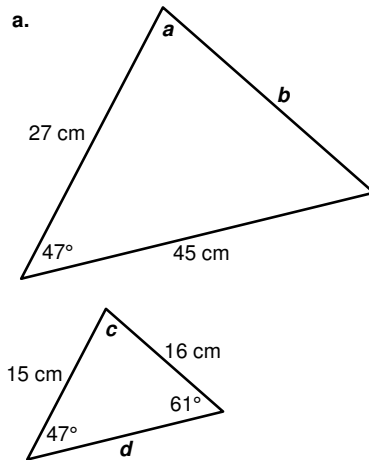
- b. Is $\triangle RST$ similar to $\triangle RUV$? Explain.



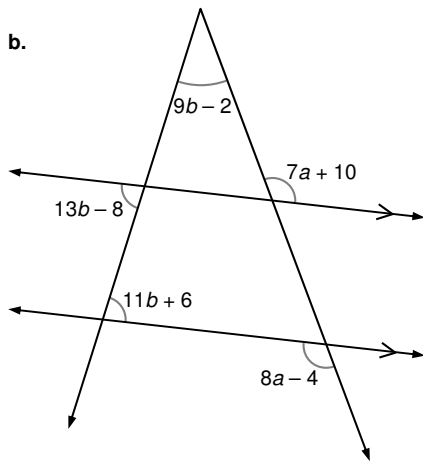
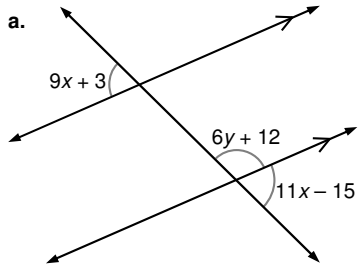
9. Find the interior angle measures for each pair of shaded triangles, then state whether or not the triangles are similar.



10. The pairs of triangles shown below are similar. Use what you know about similar triangles to find all of the unmarked angles and side lengths. *Hint: you will need to find the scale factor to find the unknown side lengths.*



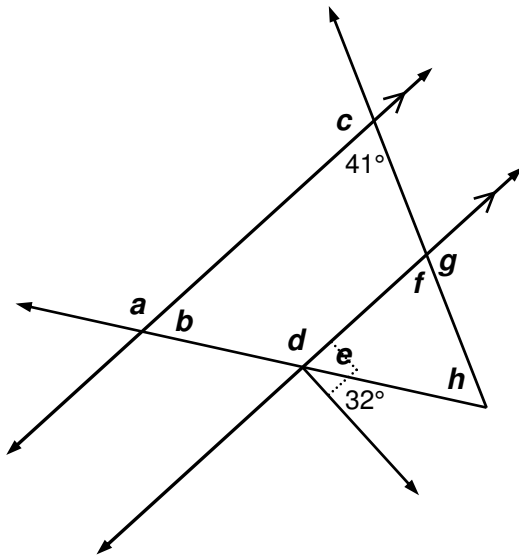
11. Write and solve an equation to find the value of each variable, then calculate the measure of each angle. Show your algebra work!



12. A flagpole 4 meters tall casts a 6-meter shadow. At the same time of day, a nearby building casts a 24-meter shadow. How tall is the building? Sketch a labeled diagram and then solve. Show your work.
13. Five-foot-tall Melody casts an 84-inch shadow. How tall is her friend if, at the same time of day, his shadow is 1 foot shorter than hers? Sketch a labeled diagram and then solve. Show your work.

Problem of the Day:

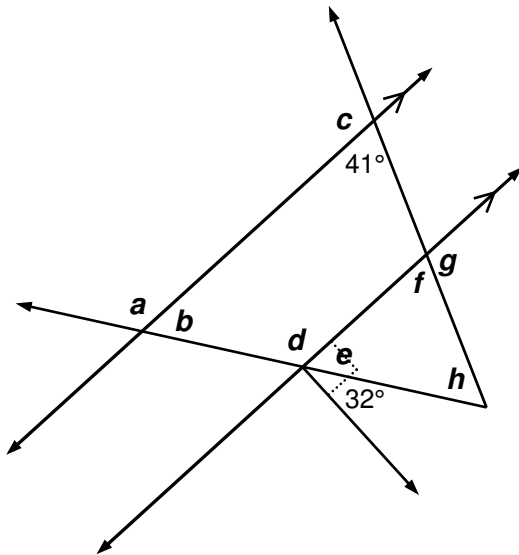
Find the measures of the unknown angles without using a protractor.

**Learning Target:****Classwork:****Bonus:**

Draw and label your own geometry diagram that could be solved using the angle relationships that we have learned so far this unit!

Problem of the Day:

Find the measures of the unknown angles without using a protractor.

**Learning Target:****Classwork:****Bonus:**

Draw and label your own geometry diagram that could be solved using the angle relationships that we have learned so far this unit!