

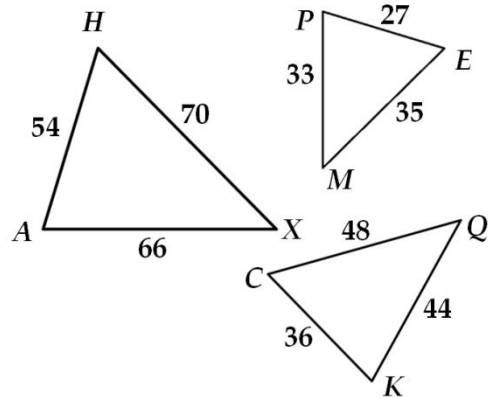
WORKSHEET 8.5 – Proving Triangle Similarity by SSS & SAS



Name: _____ Hour: _____ Date: _____

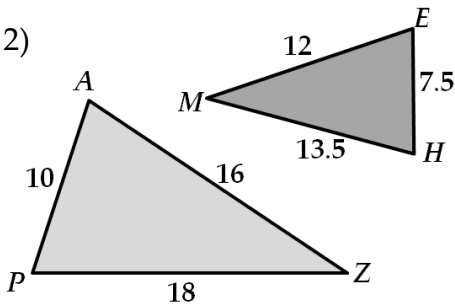
SECTION 1: Which triangles are similar? Write a similarity statement. State the scale factor from the smaller triangle to the larger triangle.

1)

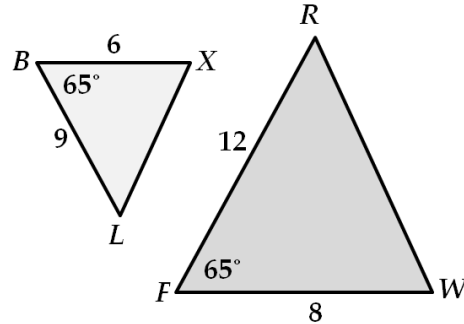


SECTION 2: Are the triangles similar? If so, write a similarity statement and state which similarity postulate or theorem justifies your answer.

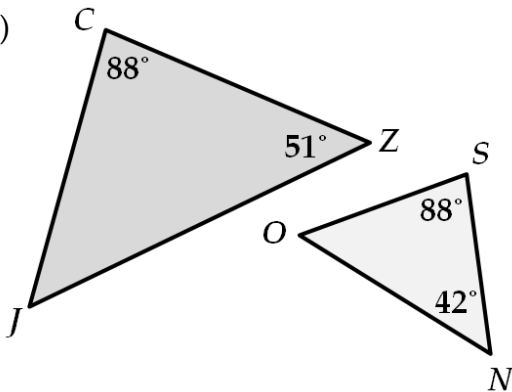
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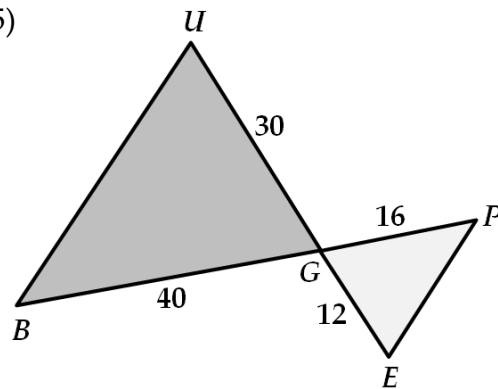
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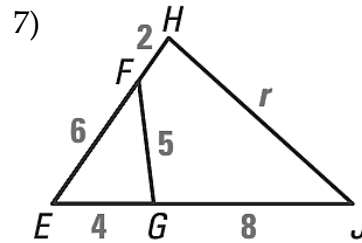
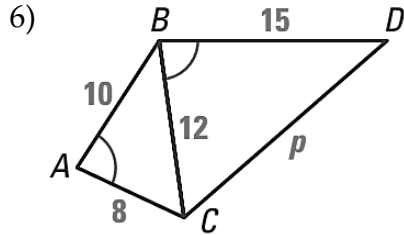
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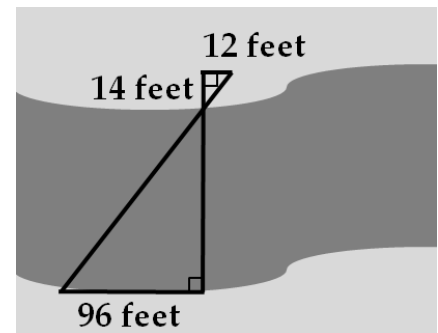


SECTION 3: Determine if the triangles are similar. If they are, write a similarity statement and solve for the variable.

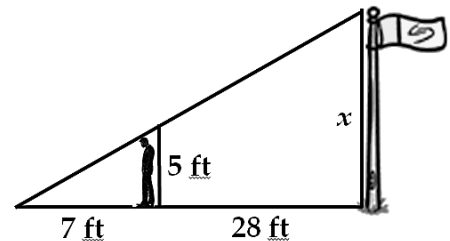


SECTION 4: Solve each word problem with similar triangles.

8) Mark is using a surveying technique to measure the width of a river. He has set up the measurements show in the diagram. Use his measurements and similar triangles to find the width of the river.



9) Bobby wants to figure out how tall a flagpole is, so he stands so that the tip of his shadow coincides with the tip of the flagpole's shadow. Bobby is 5 feet tall. He stands 28 feet from the flagpole and 7 feet from the tips of the shadows. How tall is the flagpole?



10) Zoe is being chased by a hungry dinosaur when she begins to wonder just how tall that vicious beast is. So she places a mirror on the ground 32 feet away from the dinosaur so that when she looks in the mirror, she sees the dinosaur's head. She stands 8 feet away from the mirror, and her eyes are 5 feet away from the ground. How tall is the dinosaur?

