**6.2 Similar Triangles (p. 151)**



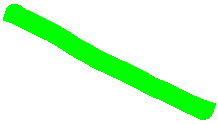
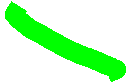
Triangles are **similar** if either:



1. The ratios of their corresponding sides are equal.



For example:

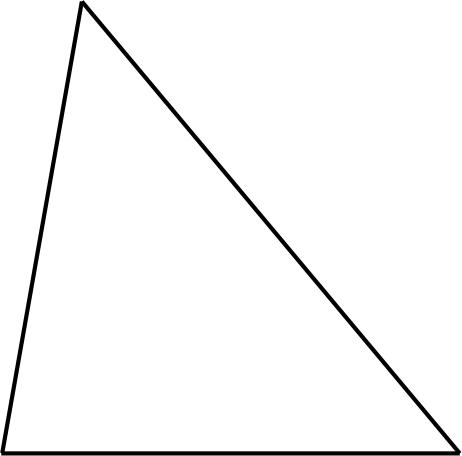
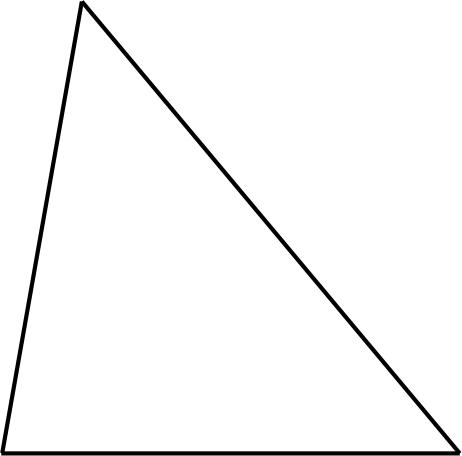


**OR**



2. Corresponding angles are equal





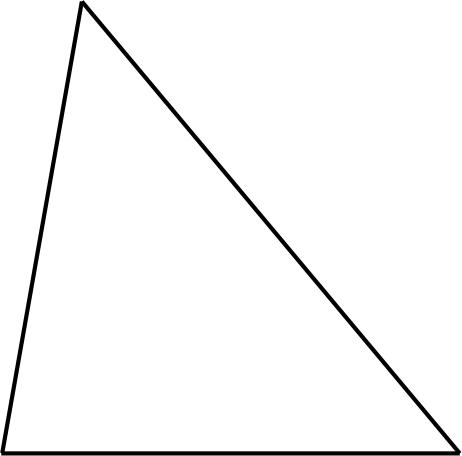


Example 1: If ΔABC is similar to ΔDEF, find *x*

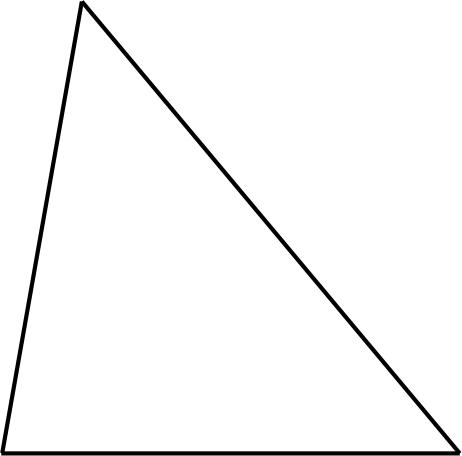


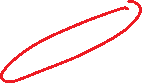
Example 2: Find *x*.



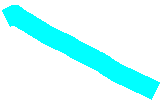
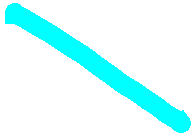
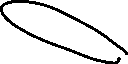






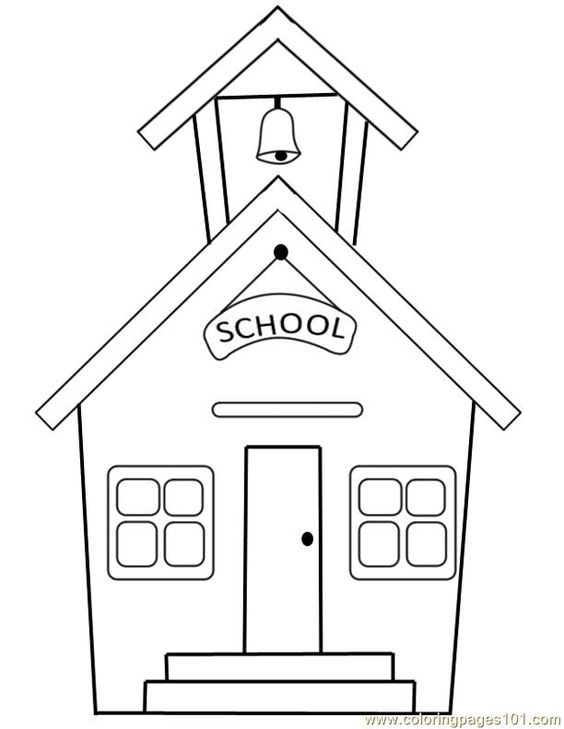


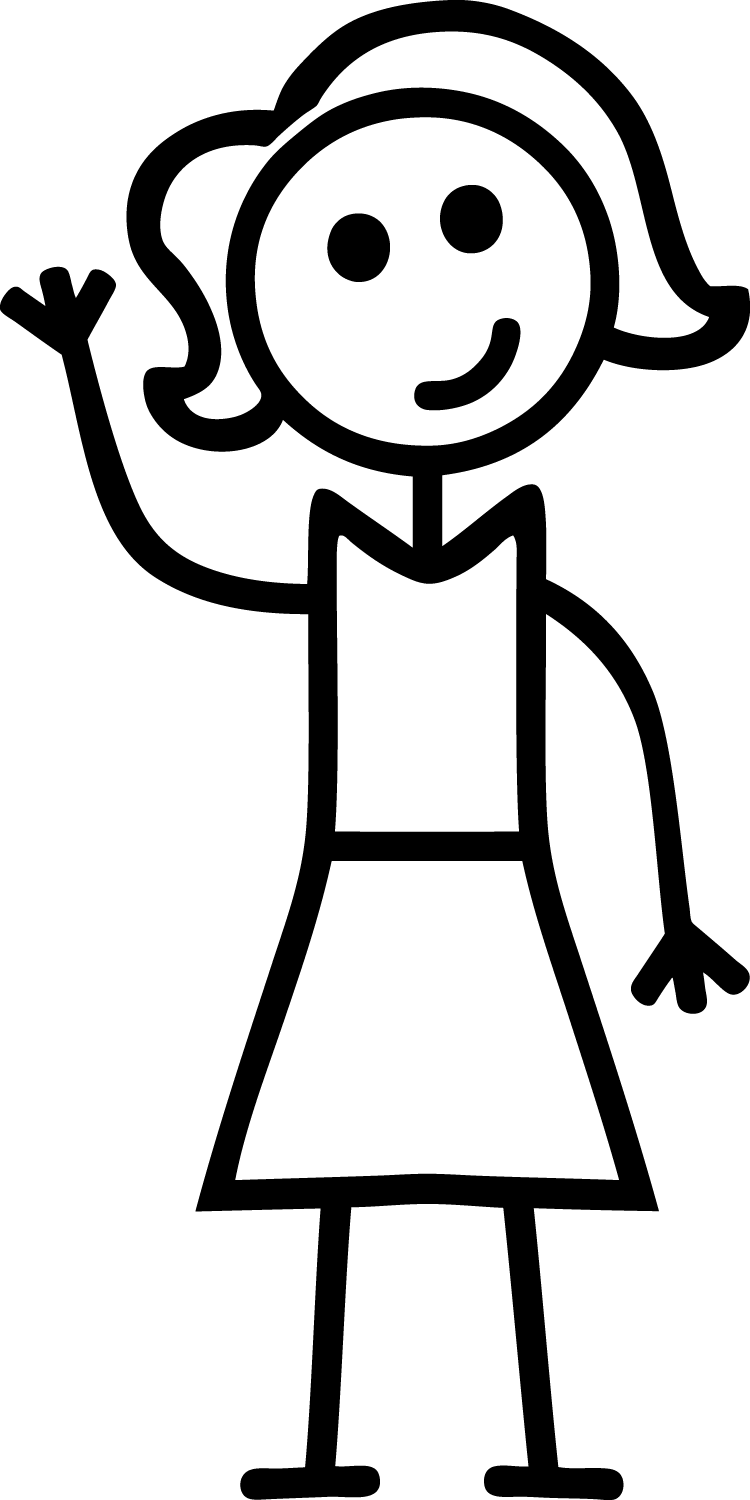
Example 3: Is ΔABC similar to ΔCDE?

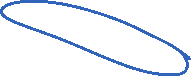
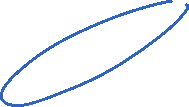
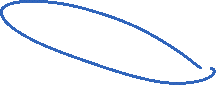


Example 4: Mrs. Sharp stands 1.5m tall and casts a 1.2m shadow. At the same time of day, the school's shadow is 8m long. What is the height of the school?

(Note: Diagram is NOT to scale. Do not assume it is unless told so!)

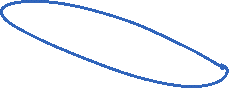
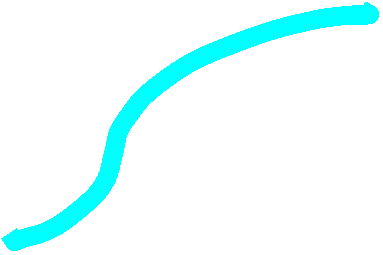
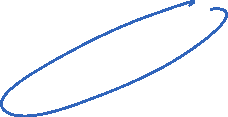
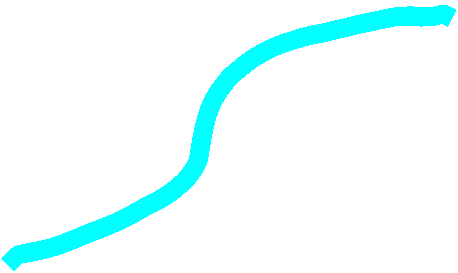






Example 5: A surveyor wants to determine the width of a river to build a bridge. Using her surveying equipment, these measurements were taken:





Homework: