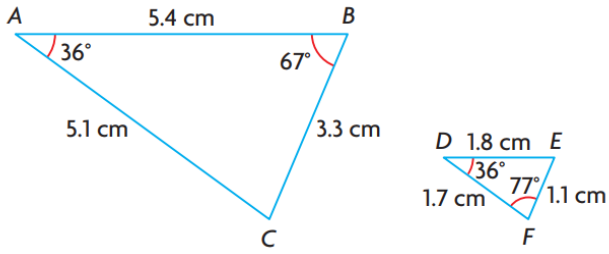
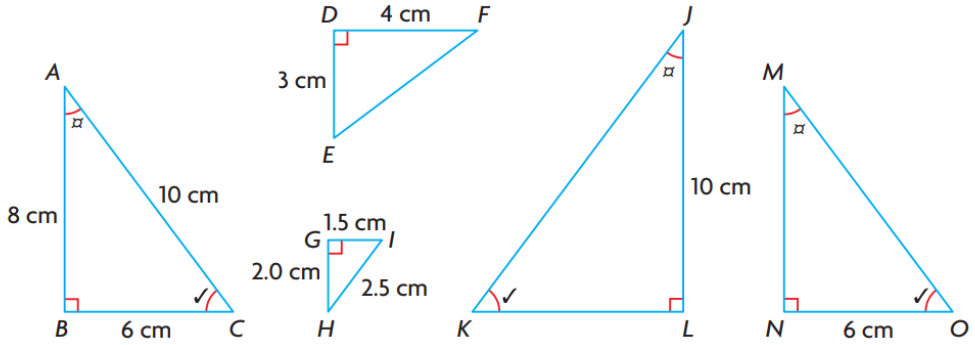
MPM 2D1 Name: _____

Similar and Congruent Triangles

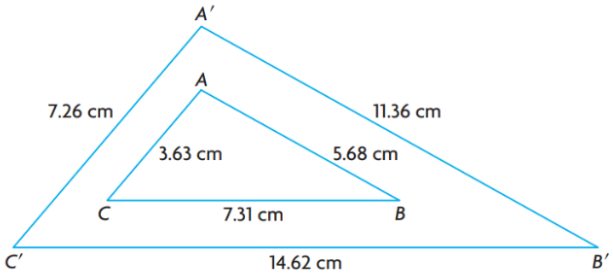
1. Is $\triangle ABC \sim \triangle DEF$? Explain your reasoning.



2. Which triangle is congruent to $\triangle ABC$? Which triangles are similar to $\triangle ABC$?



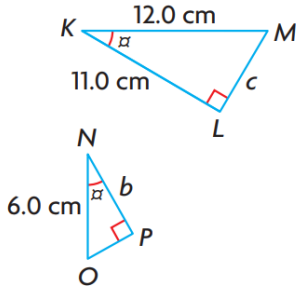
3. Are these two triangles similar? Explain how you know.



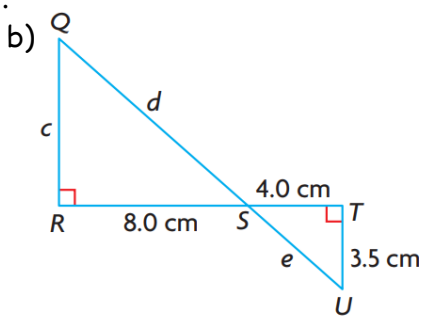
4. Suppose that $\triangle PQR \sim \triangle LMN$ and $\angle P = 90^\circ$.
   a) What angle in $\triangle LMN$ equals 90°? How do you know?
   b) If $MN = 13$ cm, $LM = 5$ cm, and $PQ = 15$ cm, what are the lengths of PR and QR?

5. Determine the value of each lower-case letter.

a)



b)



6. Nora, who is 172.0 cm tall, is standing near a tree. Nora's shadow is 3.2 m long. At the same time, the shadow of the tree is 27.0 m long. How tall is the tree?