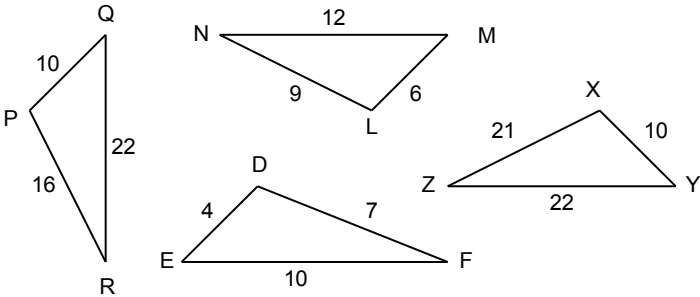
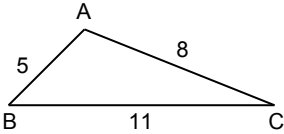


9 Unit 7.4 - REVIEW Questions

Multiple Choice

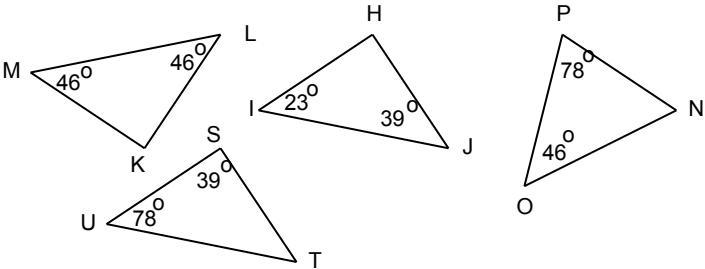
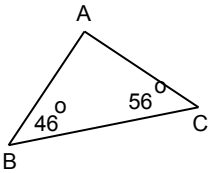
Identify the choice that best completes the statement or answers the question.

1. Which triangle is similar to  $\triangle ABC$ ?



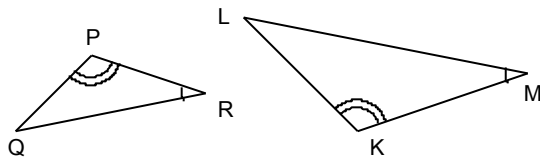
- a.  $\triangle XYZ$       b.  $\triangle PQR$       c.  $\triangle LMN$       d.  $\triangle DEF$

2. Which triangle is similar to  $\triangle ABC$ ?



- a.  $\triangle HIJ$       b.  $\triangle STU$       c.  $\triangle PON$       d.  $\triangle KLM$

3. These triangles are similar. Complete the ratios of the corresponding sides:  $\frac{PQ}{PR} = \frac{PR}{QR} = \frac{QR}{\quad}$



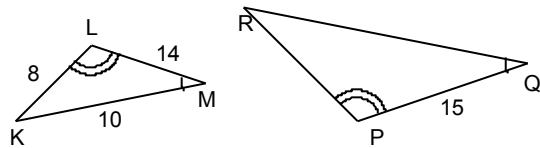
a.  $\frac{PQ}{KL} = \frac{PR}{LM} = \frac{QR}{KM}$

b.  $\frac{PQ}{LM} = \frac{PR}{KM} = \frac{QR}{KL}$

c.  $\frac{PQ}{KM} = \frac{PR}{KL} = \frac{QR}{LM}$

d.  $\frac{PQ}{KL} = \frac{PR}{KM} = \frac{QR}{LM}$

\_\_\_\_ 4. These triangles are similar. Determine the length of QR to the nearest tenth.



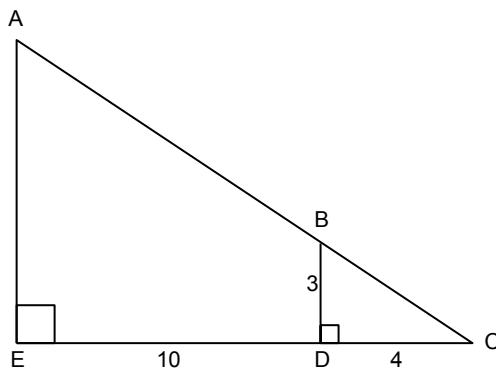
a. 10.7

b. 12

c. 26.3

d. 18.8

\_\_\_\_ 5. Determine the length of AE in this pair of similar triangles.



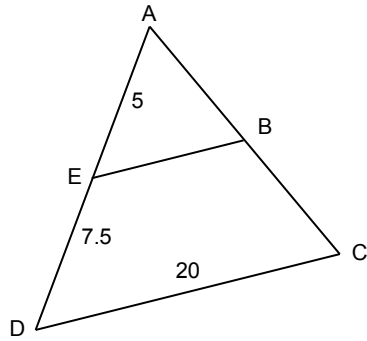
a. 3.3

b. 10.5

c. 7.5

d. 4.3

\_\_\_\_ 6. Determine the length of EB in this pair of similar triangles.

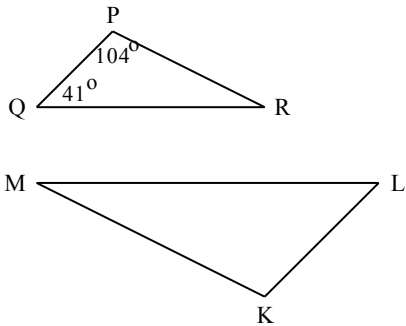


- a. 13.3                      b. 10                      c. 8                      d. 5

7. When the shadow of a flagpole is 31.2 m long, a 1.6-m fencepost casts a shadow 2.6 m long. How tall is the flagpole?

- a. 50.7 m                      b. 12.6 m                      c. 19.2 m                      d. 19.2 m

8. Determine the measure of  $\angle KML$  in this pair of similar triangles.



- a.  $55^\circ$                       b.  $104^\circ$                       c.  $41^\circ$                       d.  $35^\circ$

### Short Answer

9. Triangle ABC is similar to  $\triangle PQR$ .

The ratios of the corresponding sides are:  $\frac{AB}{PQ} = \frac{BC}{QR} = \frac{AC}{PR}$

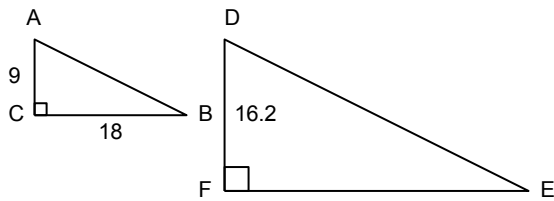
State the corresponding angles.

10. Triangle KLM is similar to  $\triangle RST$ .

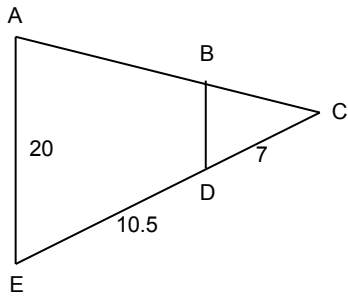
The corresponding angles are:  $\angle K = \angle R$ ,  $\angle L = \angle S$ ,  $\angle M = \angle T$

State the ratios of the corresponding sides.

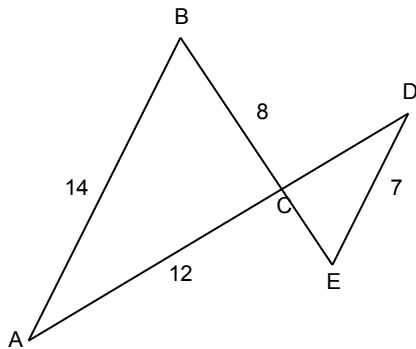
11. Determine the length of EF in these similar triangles.



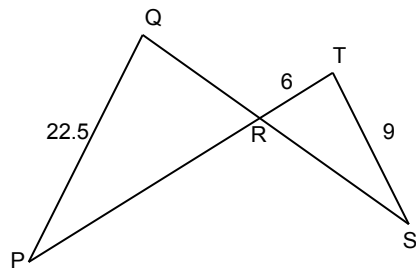
12. Determine the length of  $BD$  in these similar triangles.



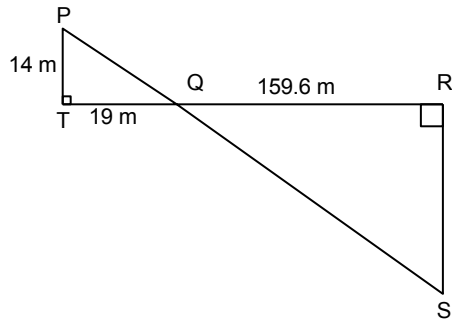
13. Determine the lengths of  $CD$  and  $CE$  in these similar triangles.



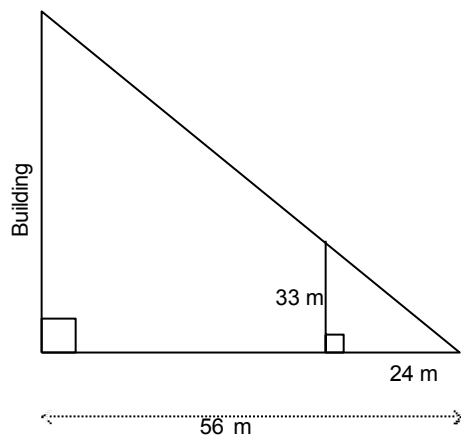
14. Determine the length of  $QR$  in these similar triangles.



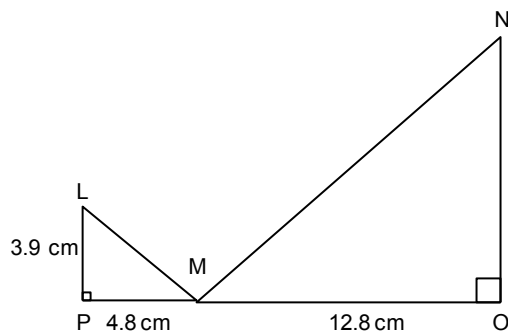
15. Determine the length of  $RS$  in these similar triangles.



16. This scale diagram shows the measurements a surveyor made to determine the height of a building. What is this height?

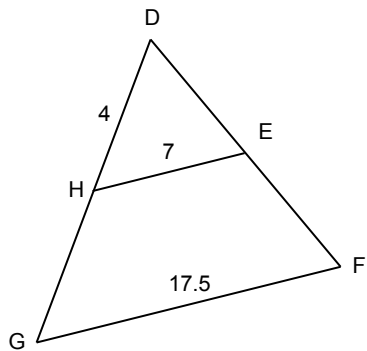


17. When the shadow of an electrical tower is 10.8 m long, a 4-m lamp post casts a shadow 6 m long. How tall is the electrical tower?
18. Determine the length of NO in these similar triangles.

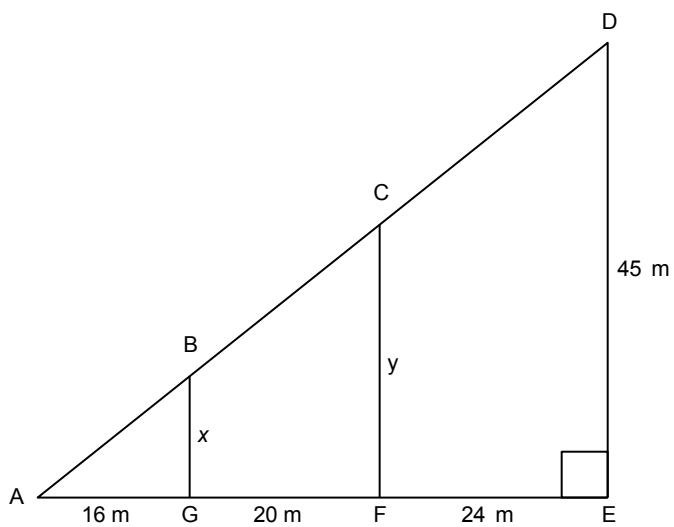


### Problem

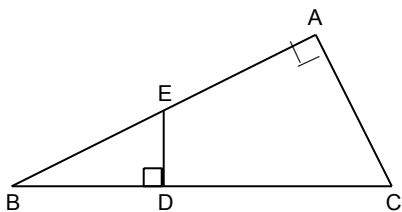
19. Determine the length of HG.



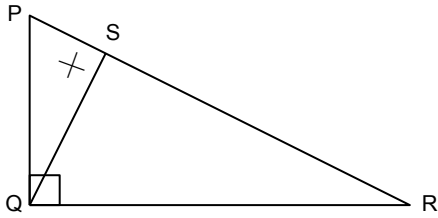
20. Determine the lengths of  $BG$  and  $CF$  in these similar triangles.



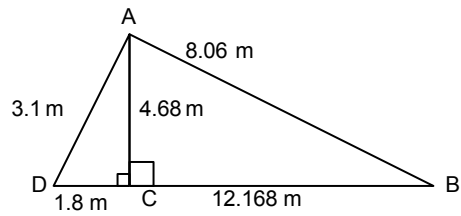
21. Identify the similar triangles. Justify your answer.



22. Triangle  $PSQ$  is similar to  $\triangle PQR$ . Identify the corresponding sides.



23. Identify the similar triangles. Justify your answer.



24. a) Is  $\triangle ADC$  similar to  $\triangle EBC$ ? Justify your answer.  
 b) If  $AB = 4$  cm,  $BC = 2$  cm, and  $DC = 3$  cm, determine the length of  $EC$ .

