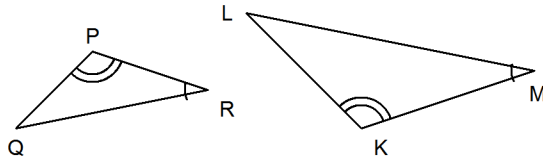


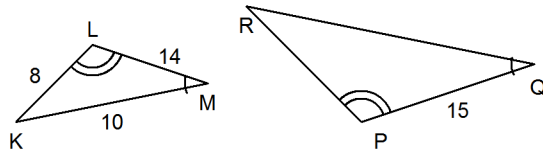
Math 9: Similar Triangle Review

Short Answer

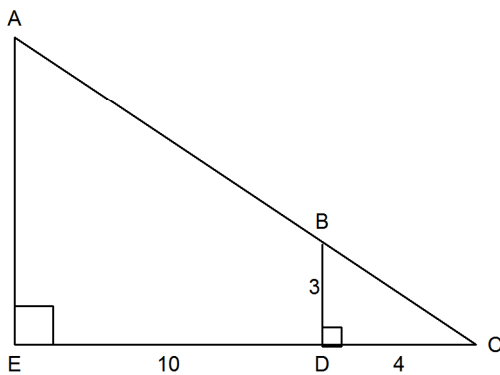
1. These triangles are similar. Complete the ratios of the corresponding sides: $\frac{PQ}{PR} = \frac{PR}{QR} = \frac{QR}{QR}$



2. These triangles are similar. Determine the length of QR to the nearest tenth.



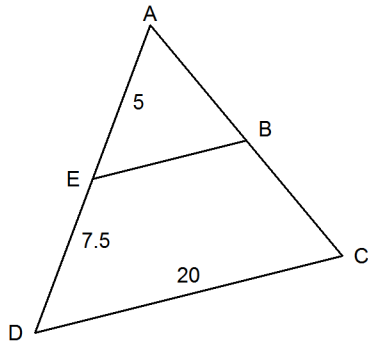
3. Determine the length of AE in this pair of similar triangles.



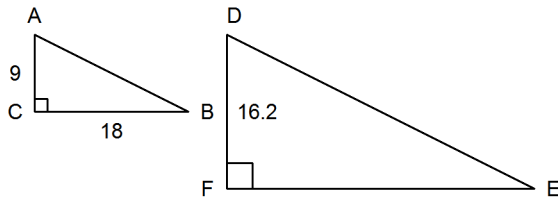
Name: _____

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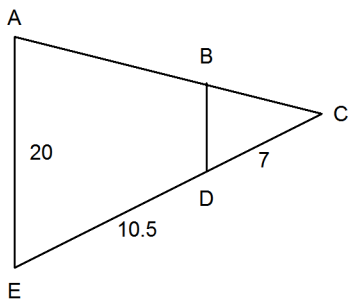
4. Determine the length of EB in this pair of similar triangles.



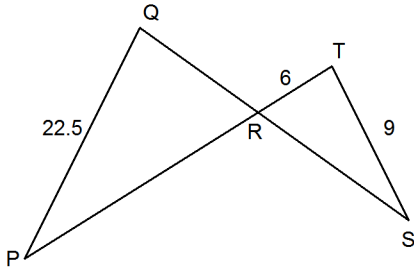
5. When the shadow of a flagpole is 31.2 m long, a 1.6-m fencepost casts a shadow 2.6 m long. How tall is the flagpole?
6. Determine the length of EF in these similar triangles.



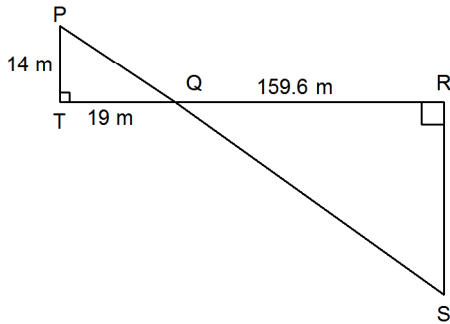
7. Determine the length of BD in these similar triangles.



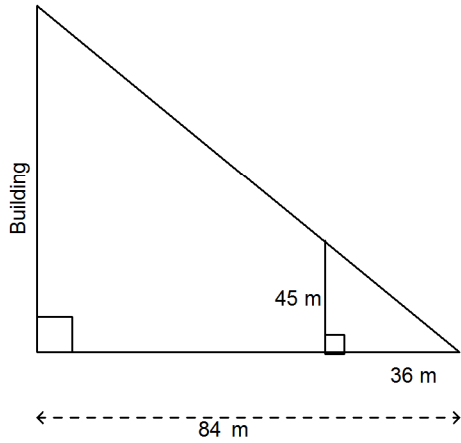
8. Determine the length of QR in these similar triangles.



9. Determine the length of RS in these similar triangles.

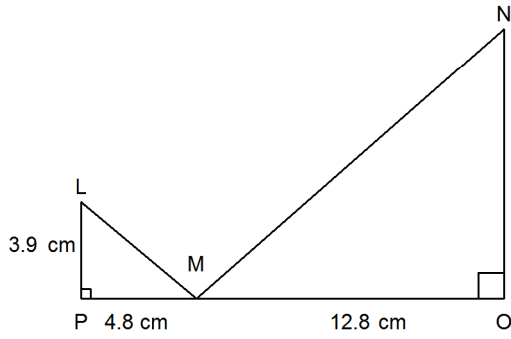


10. This scale diagram shows the measurements a surveyor made to determine the height of a building. What is this height?



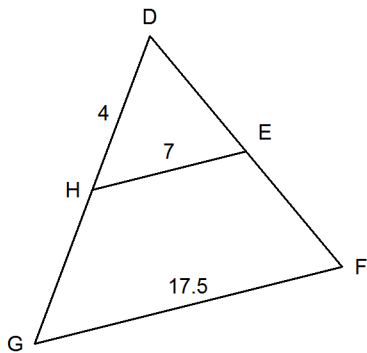
11. When the shadow of an electrical tower is 10.8 m long, a 4-m lamp post casts a shadow 6 m long. How tall is the electrical tower?

12. Determine the length of NO in these similar triangles.

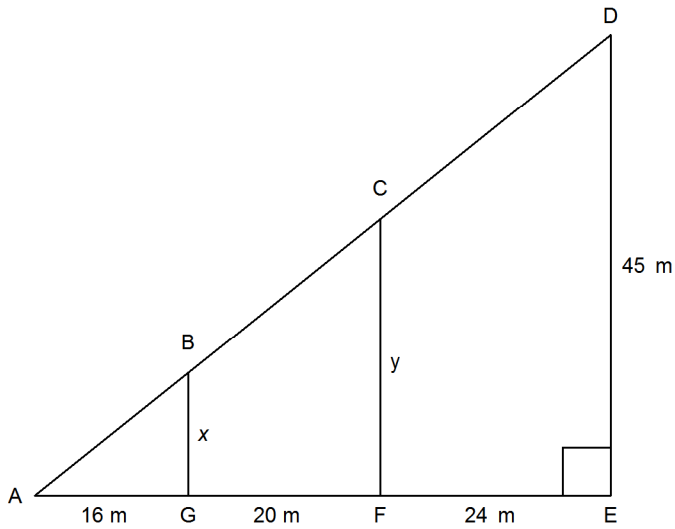


Problem

13. Determine the length of HG.



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



**Math 9: Similar Triangle Review
Answer Section****SHORT ANSWER**

1. $\frac{PQ}{KL} = \frac{PR}{KM} = \frac{QR}{LM}$
2. 10.7
3. 10.5
4. 8
5. 19.2 m
6. $EF = 32.4$
7. $BD = 8$
8. $QR = 15$
9. $RS = 117.6$ m
10. 105 m
11. 7.2 m
12. 10.4 cm

PROBLEM

13. $\frac{DG}{DH} = \frac{GF}{HE}$
- $$\frac{4 + HG}{4} = \frac{17.5}{7}$$
- $$4 \times \frac{4 + HG}{4} = \frac{17.5}{7} \times 4$$
- $$4 + HG = \frac{17.5 \times 4}{7}$$
- $$4 + HG = 10$$
- $$4 + HG - 4 = 10 - 4$$
- $$HG = 6$$
- The length of HG is 6 units.

$$14. \quad \frac{BG}{DE} = \frac{16}{60}$$

$$\frac{BG}{45} = \frac{16}{60}$$

$$45 \times \frac{BG}{45} = \frac{16}{60} \times 45$$

$$BG = \frac{16 \times 45}{60}$$

$$BG = 12$$

The length of BG is 12 m.

$$\frac{CF}{DE} = \frac{36}{60}$$

$$\frac{CF}{45} = \frac{36}{60}$$

$$45 \times \frac{CF}{45} = \frac{36}{60} \times 45$$

$$CF = \frac{36 \times 45}{60}$$

$$CF = 27$$

The length of CF is 27 m.