GRADE 8 MATH · CLASSWORK · ADVANCED

Solve Problems Involving Similar Triangles

SCORE / 25

01 Part A · Practice

In similar triangles, matching sides are proportional: find the scale factor from one pair, then use it on the other sides.

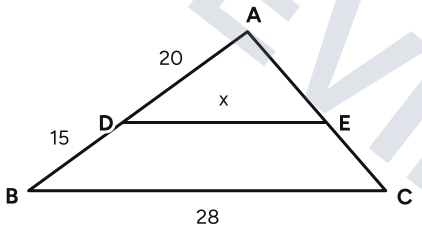
EXAMPLE

A 6 ft person casts a 4 ft shadow. A tree casts a 20 ft shadow. How tall is the tree?

1. The sun makes similar right triangles (AA).
2. Scale factor: 20 ÷ 4 = 5.
3. Tree: 6 × 5 = 30 ft.

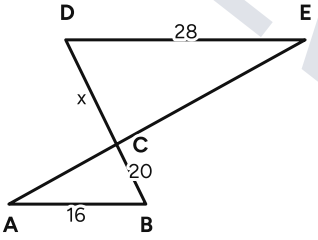
1 ●○○ $\triangle PQR \sim \triangle LMN$. $PQ = 9$, $LM = 15$, $QR = 6$. Find MN.

2 ●○○ $\overline{DE} \parallel \overline{BC}$, so $\triangle ADE \sim \triangle ABC$. Find x.



3 ●○○ Two similar triangles: matching sides are $(2x + 6)$ and 15, and another pair is 14 and 21. Find x.

4 ●○○ $\overline{AB} \parallel \overline{DE}$ and $\triangle ABC \sim \triangle EDC$. Find x.



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Preview - the full worksheet and its answer key are at primeworksheet.com