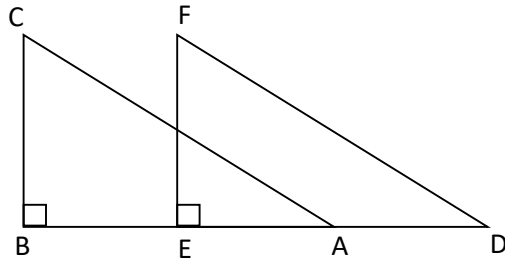


Similarities and Isometries - Supplemental Question 2 with Solution

Right triangles ABC and DEF are isometric (congruent).

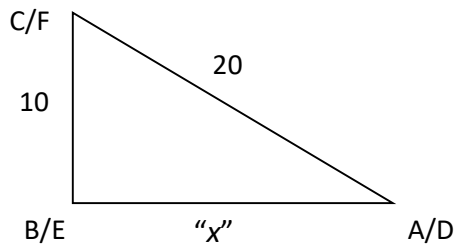


$m\overline{AC} = 20\text{ cm}$
 If $m\overline{EF} = 10\text{ cm}$
 $m\overline{EA} = 7\text{ cm}$

What is the length of \overline{AD} to the nearest tenth?

- A) 8.4 cm
- B) 10.3 cm**
- C) 15.4 cm
- D) 17.3 cm

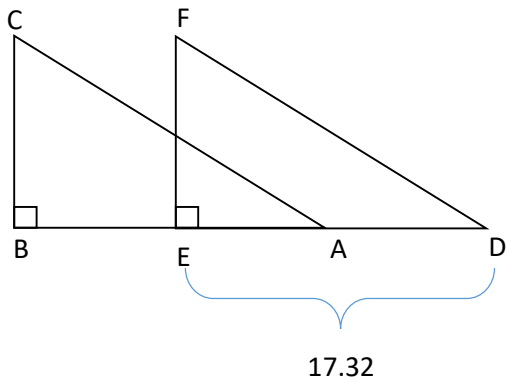
$\overline{AC} = 20\text{ cm}$
 $\overline{EF} = 10\text{ cm}$



$$20^2 - 10^2 = x^2$$

$$x^2 = 300$$

$$x = 17.32$$



$$m\overline{EA} = 7 \text{ cm}$$

$$m\overline{AD} = m\overline{ED} - m\overline{EA}$$

$$m\overline{AD} = 17.32 - 7 = \mathbf{10.32 \text{ cm}}$$