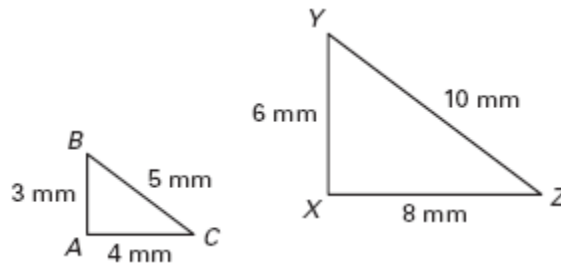Name _____   Date _____

10.5B Similar and Congruent Polygons

In Exercises 1–3, use the diagram and the fact that $\triangle ABC \sim \triangle XYZ$.

1. Find $\dfrac{AB}{XY}$.

2. Find $\dfrac{BC}{YZ}$.
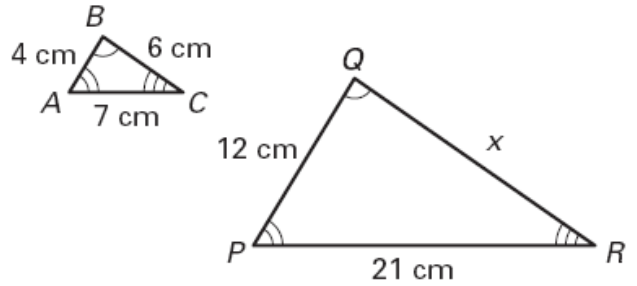
3. Find $\dfrac{AC}{XZ}$.

4. Which equation could be used to find the unknown length x given that the polygons are similar?

A. $\dfrac{4}{12} = \dfrac{x}{6}$
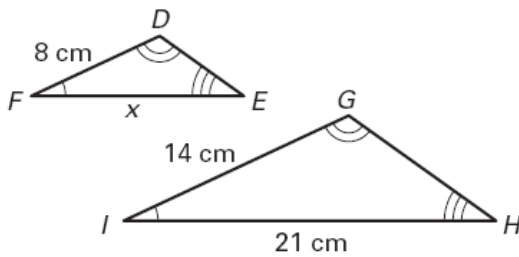
B. $\dfrac{6}{7} = \dfrac{21}{x}$

C. $\dfrac{4}{12} = \dfrac{6}{x}$

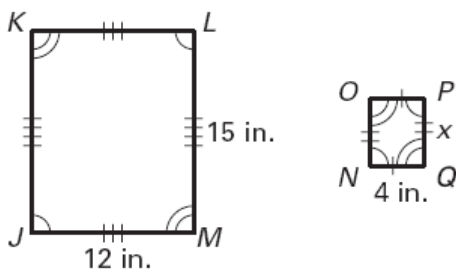**D.** $\dfrac{4}{x} = \dfrac{6}{12}$

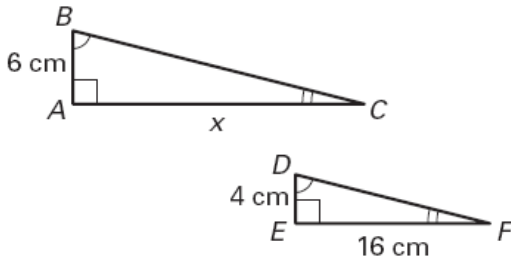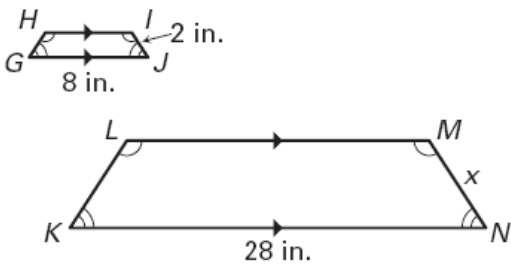**Find the unknown length x given that the polygons are similar.**

5.

6.

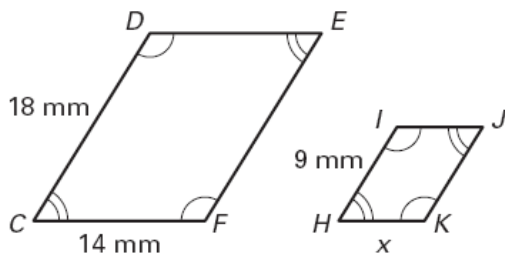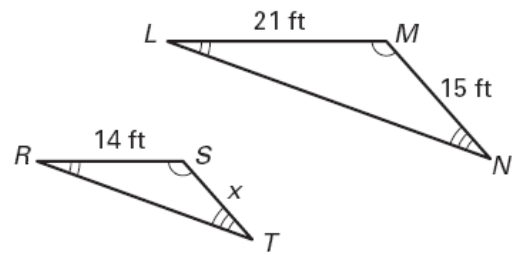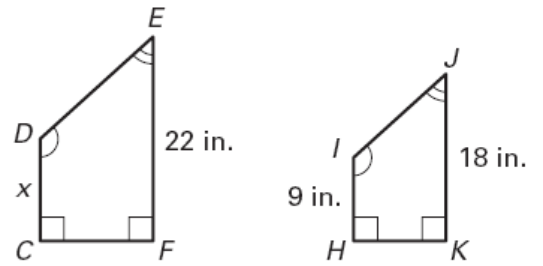**Find the unknown length x given that the polygons are similar.**

7.

6 cm, B, A, x, C, D, 4 cm, E, 16 cm, F

10.

21 ft, L, M, 15 ft, 14 ft, R, S, x, T, N

8.

H, I, 2 in., G, J, 8 in., L, M, x, K, N, 28 in.

11.

E, D, 22 in., x, C, F, J, I, 18 in., 9 in., H, K

9.

D, E, 18 mm, I, J, 9 mm, C, F, 14 mm, H, K, x

12.

G, 14 m, H, A, x, B, 23 m, 28 m, C, I