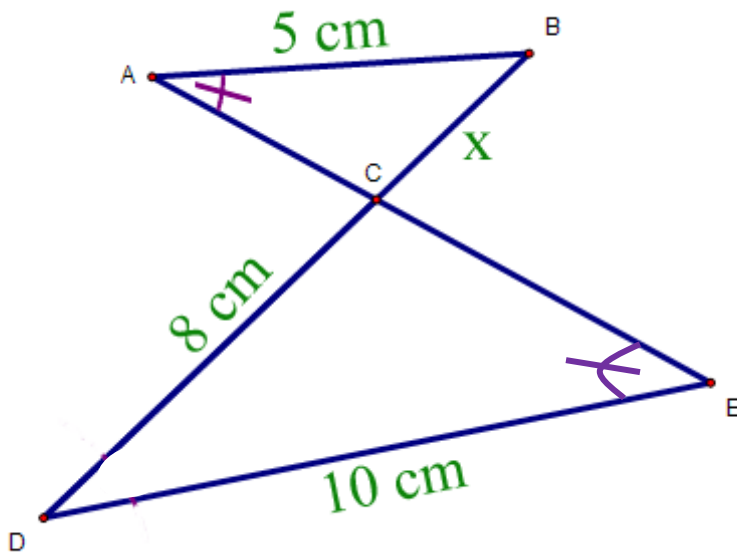


ANSWER KEY

EXIT SLIP:

Using the figure below answer the following questions:



1. Prove that $\triangle ABC \sim \triangle DEC$ using one of the similarity short cuts. Quickly explain how you came to that conclusion.

They are similar by AA. We are given that $\angle CDE \cong \angle BAC$, and we can assume that $\angle ACB \cong \angle DCE$ by the vertical angle theorem.

**They can also prove the two triangles are similar by AAS. We are given that $\angle CDE \cong \angle BAC$, and we can assume that $\angle ACB \cong \angle DCE$ by the vertical angle theorem. We can assume that $m\overline{DE} = 2 * m\overline{AB}$, since they are corresponding sides and that $m\overline{DE} = 10 \text{ cm}$ and $m\overline{AB} = 5 \text{ cm}$.

2. Find the value of X.

$$\frac{8\text{cm}}{10\text{cm}} = \frac{X}{5\text{cm}}$$

$$8\text{cm} * 5\text{cm} = 10\text{cm} * X$$

$$X = \frac{40\text{cm}^2}{10\text{cm}} = 4\text{cm}$$