GRADE 8 MATH · CLASSWORK · SPECIAL ED

Determine Whether Triangles are Similar (Using Parallel Lines)

SCORE / 25

01 Part A · Practice

Parallel lines create congruent corresponding or alternate interior angles; with a shared or vertical angle, AA shows the triangles are similar.

EXAMPLE

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$. Is $\triangle ADE \sim \triangle ABC$?

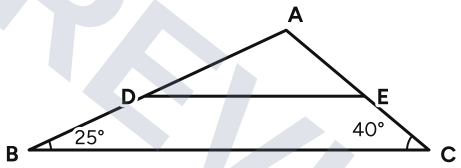
1. $\angle A$ is in both triangles.
2. $\angle ADE \cong \angle B$ (corresponding angles).
3. AA: $\triangle ADE \sim \triangle ABC$.

WORDS TO KNOW

parallel	never meet
vertical angles	opposite angles at a crossing; congruent
alternate interior angles	congruent when lines are parallel

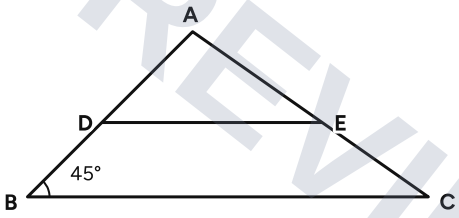
1 ●○○ $\overline{DE} \parallel \overline{BC}$. Find $m\angle ADE$.

HINT Parallel lines make corresponding angles congruent. The angles of a triangle add to 180°.



2 ●○○ In the figure, $\overline{DE} \parallel \overline{BC}$. Is $\triangle ADE \sim \triangle ABC$? Explain.

HINT Which angle is in both triangles? Which angles are corresponding?



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