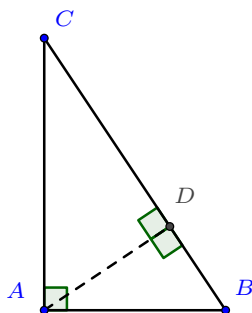


Similar Right Triangles

Proofs updated.

Problem 1 Adapted from Ohio's 2017 Geometry released item 17.



Complete the following proof that $\triangle DAC$ is similar to $\triangle DBA$:

- (a) $\triangle ABC \sim \triangle \boxed{DBA}$ by AA similarity because they share $\angle B$ and they each have a right angle.
- (b) $\triangle ABC \sim \triangle \boxed{DAC}$ by AA similarity because they share $\angle C$ and they each have a right angle.
- (c) $\triangle DAC \sim \triangle \boxed{DBA}$ because they are both similar to $\triangle ABC$.

Fixnote: Should we prompt for AA in the first two steps? The 2017 EOC item prompts for “AA postulate,” but AA is not a postulate. Should AA be called a criterion? a theorem? a condition? a test? Is “AA similarity” enough?