**Homework 4.8 – Similarity Proofs – Honors** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. $\overbar{BD} is an altitude$

2.

3.

4. $\overbar{BD} bisects ∠ABC$

5.

6.

Statements

Reasons

1. Given

2.

3.

4. Given

5.

6.

1. **Given:** $\overbar{BD} is an altitude$

 $\overbar{BD} bisects ∠ABC$

 **Prove:** $∆ABD \~ ∆CBD$



1. $∠ACB≅∠AED$

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4. $\frac{AE}{AC}=\frac{ED}{BC}$

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2. **Given:** $∠ACB≅∠AED$



 **Prove:** $\frac{AE}{AC}=\frac{ED}{BC}$

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