Practice worksheet | Geometry and proof

Connected deductive arguments

Name: _____ Date: _____

6 questions | 16 marks

1. In triangle ABC, AB=AC. D is the midpoint of BC. Prove triangles ABD and ACD congruent. [3 marks]

2. Use the previous conditions to prove AD⊥BC. [3 marks]

3. A proof says “AB=CD because the picture looks symmetric.” Explain why this is insufficient. [2 marks]

4. Prove that an angle in a semicircle is 90° using the centre-angle theorem. [3 marks]

5. Triangles ABC and DEF are similar with correspondence A↔D, B↔E, C↔F. AB=DE. Prove they are congruent. [3 marks]

6. A student verifies a circle claim for three drawings and calls it proved. What is still needed? [2 marks]