Practice worksheet | Congruence and similarity

Decision-tree algorithms and digital geometry

Name: _____ Date: _____

6 questions | 14 marks

1. Apply the side algorithm to triangles with sides 4, 5, 6 cm and 4, 5, 6 cm. State the result. [2 marks]

2. Apply the side algorithm to side lists 3, 4, 5 cm and 6, 8, 9 cm. State the result. [2 marks]

3. A program declares SAS congruence after checking two sides and any angle. What condition is missing? [2 marks]

4. A digital quadrilateral is intended to be a parallelogram. What construction constraints should be used? [2 marks]

5. A student drags ten parallelograms and observes that each pair of diagonals bisects. Is this a universal proof? Explain. [3 marks]

6. Write a short algorithm to decide whether two given triangles are similar when all side lengths are known. [3 marks]