Lesson 4.4 Practice: Proving Triangles Congruent: ASA and AAS

School Launch · Geometry · Unit 4: Triangles and Congruence · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) right triangles with hypotenuse and one leg congruent; (2) two angles and the included side congruent. EASY

2. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) three pairs of angles congruent (AAA); (2) three pairs of sides congruent. EASY

3. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) two sides and the included angle congruent; (2) three pairs of sides congruent. EASY

4. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) two sides and the included angle congruent; (2) two sides and a non-included angle congruent (SSA); (3) three pairs of sides congruent. MEDIUM

5. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) two angles and a non-included side congruent; (2) two sides and the included angle congruent; (3) two angles and the included side congruent. MEDIUM

6. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) two sides and the included angle congruent; (2) three pairs of sides congruent; (3) three pairs of angles congruent (AAA). MEDIUM

7. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) two angles and the included side congruent; (2) right triangles with hypotenuse and one leg congruent; (3) two angles and a non-included side congruent. MEDIUM

8. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) two angles and the included side congruent; (2) two sides and a non-included angle congruent (SSA); (3) two angles and a non-included side congruent; (4) two sides and the included angle congruent. HARD

9. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) two sides and a non-included angle congruent (SSA); (2) right triangles with hypotenuse and one leg congruent; (3) two angles and the included side congruent; (4) two sides and the included angle congruent. HARD

10. Which congruence criterion (SSS, SAS, ASA, AAS, HL) applies, if any? (1) three pairs of sides congruent; (2) two angles and a non-included side congruent; (3) two sides and a non-included angle congruent (SSA); (4) three pairs of angles congruent (AAA). HARD