Name _____ Class _____ Date _____

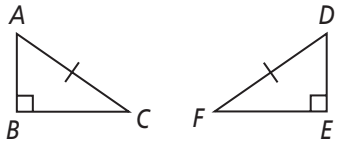
4-6 Standardized Test Prep

Congruence in Right Triangles

Multiple Choice

For Exercises 1–4, choose the correct letter.

1. Which additional piece of information would allow you to prove that the triangles are congruent by the HL theorem?



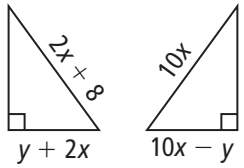
(A) $m\angle DFE = 40$

(B) $m\angle F = m\angle ABC$

(C) $\overline{AB} \cong \overline{DE}$

(D) $\overline{AC} \cong \overline{DF}$

2. For what values of x and y are the triangles shown congruent?



(F) $x = 1, y = 4$

(G) $x = 2, y = 4$

(H) $x = 4, y = 1$

(I) $x = 1, y = 3$

3. Two triangles have two pairs of corresponding sides that are congruent. What else must be true for the triangles to be congruent by the HL Theorem?

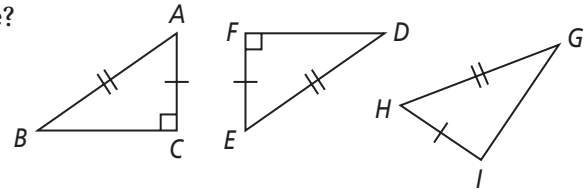
(A) The included angles must be right angles.

(B) They have one pair of congruent angles.

(C) Both triangles must be isosceles.

(D) There are right angles adjacent to just one pair of congruent sides.

4. Which of the following statements is true?



(F) $\triangle BAC \cong \triangle GHI$ by SAS.

(G) $\triangle DEF \cong \triangle GHI$ by SAS.

(H) $\triangle BAC \cong \triangle DEF$ by HL.

(I) $\triangle DEF \cong \triangle GHI$ by HL.

Extended Response

5. Are the given triangles congruent by the HL Theorem? Explain.