## Assessment

## **Progress Assessment**

Circle the letter of the best answer.

1.  $\triangle ABC$  and  $\triangle XYZ$  are congruent triangles. Which statement is known to be true?

a.	$\angle A \cong \angle B$	c.	$\angle B \cong \angle Y$
b.	$\angle X \cong \angle Y$	d.	$\angle A \cong \angle Y$

2.  $\triangle DEF$  and  $\triangle TUV$  are congruent triangles. Which statement is known to be true?

a.	$\overline{DE} \cong \overline{TU}$	c.	$\overline{DF} \cong \overline{UV}$
b.	$\overline{DF} \cong \overline{TU}$	d.	$\overline{DE} \cong \overline{TV}$

3. If there are two triangles for which  $\overline{FH} \cong \overline{MP}$ ,  $\overline{HJ} \cong \overline{PR}$ , and  $\overline{FJ} \cong \overline{MR}$ , which statement is known to be true?

a.	$\triangle FHJ \cong \triangle RMP$	c.	$\triangle FHJ \cong \triangle RPM$
b.	$\triangle FHJ \cong \triangle MPR$	d.	$\triangle FJH \cong \triangle MPR$

4.  $\triangle DEF$  and  $\triangle GHI$  are congruent triangles where  $\angle F \cong \angle I$ . Which pairs of congruent components also indicate that the two triangles are congruent?

a.	$\angle D \cong \angle G$ and $\overline{DF} \cong \overline{GI}$	c.	$\angle D \cong \angle G$ and $\overline{DF} \cong \overline{HI}$
b.	$\overline{FE} \cong \overline{HI}$ and $\overline{DE} \cong \overline{GH}$	d.	$\angle D \cong \angle G$ and $\angle E \cong \angle H$

5. Which set of equivalent measures does not make it possible to determine if any two given triangles are congruent?

a.	angle-side-angle	c.	angle-angle-side
b.	side-angle-side	d.	angle-angle-angle

- 6. A triangle congruent to  $\triangle DEF$  is to be constructed. Only three components are measured. Which three components, if constructed in the order listed, will always create a congruent triangle?
  - a. angle-angle-angle
  - b. side-angle-side
  - c. side-side-angle
  - d. Only the three side lengths can be used to create a congruent triangle.



- 7. For  $\triangle ABC$  and  $\triangle DEF$ , the following is given:  $\overline{AB} \cong \overline{DE}$ ,  $\overline{BC} \cong \overline{EF}$ , and  $\overline{AC} \cong \overline{DF}$ . By which triangle congruence statement can it be concluded that the triangles are congruent?
  - a. SSS
  - b. SAS
  - c. ASA
  - d. It cannot be determined if the triangles are congruent.

## Honors Geometry Unit 2

- 8. For  $\triangle ABC$  and  $\triangle DEF$ , the following is given:  $\angle A \cong \angle D$ ,  $\angle B \cong \angle E$ , and  $\overline{AB} \cong \overline{DE}$ . By which triangle congruence statement can it be concluded that the triangles are congruent?
  - a. SSS
  - b. SAS
  - c. ASA
  - d. It cannot be determined if the triangles are congruent.
- 9. For  $\triangle ABC$  and  $\triangle DEF$ , the following is given:  $\angle C \cong \angle F$ ,  $\overline{AB} \cong \overline{DE}$ , and  $\overline{BC} \cong \overline{EF}$ . By which triangle congruence statement can it be concluded that the triangles are congruent?
  - a. SSS
  - b. SAS
  - c. ASA
  - d. It cannot be determined if the triangles are congruent.
- 10. For  $\triangle ABC$  and  $\triangle DEF$ , the following is given:  $\angle C \cong \angle F$ ,  $BC \cong EF$ , and  $AC \cong DF$ . By which triangle congruence statement can it be concluded that the triangles are congruent?
  - a. SSS
  - b. SAS
  - c. ASA
  - d. It cannot be determined if the triangles are congruent.

Use what you have learned about triangle congruence to solve the following problem.

- 11. Angelo is creating a kite and wants to determine congruent parts.
  - a. Use the information in the diagram to list congruent parts of the kite.



b. Based on the information provided, is  $\triangle ABD \cong \triangle CBD$ ? Explain your answer.