

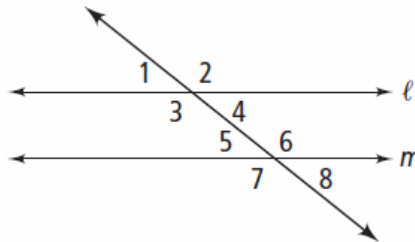
# Geometry Blizzard Bag # 2

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Cumulative Review

Chapters 1–4

Use the diagram for Exercises 1 and 2. Line  $\ell$  is parallel to line  $m$ .



1. Which best describes  $\angle 1$  and  $\angle 5$ ?

- (A) alternate interior angles
- (B) alternate exterior angles
- (C) corresponding angles
- (D) same-side exterior angles

2. Which best describes  $\angle 6$  and  $\angle 7$ ?

- (F) vertical angles
- (G) corresponding angles
- (H) alternate exterior angles
- (I) linear pair

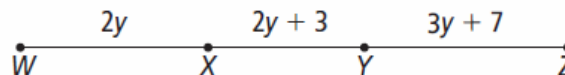
3. If an animal is a mammal, then it has fur. What is the conclusion of this conditional?

- (A) An animal is a mammal.
- (B) The animal has fur.
- (C) Mammals have fur.
- (D) Not all animals have fur.

4. Two of what geometric figure are joined at a vertex to form an angle?

- (F) points
- (G) planes
- (H) rays
- (I) lines

5. If  $WZ = 80$ , what is the value of  $y$ ?



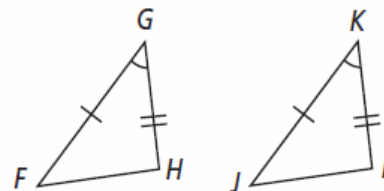
- (A) 8
- (B) 9
- (C) 10
- (D) 11

6. If  $\triangle ABC \cong \triangle DEF$ , which is a correct congruence statement?

- (F)  $\angle B \cong \angle D$
- (G)  $\overline{AB} \cong \overline{EF}$
- (H)  $\overline{CA} \cong \overline{FD}$
- (I)  $\angle A \cong \angle C$

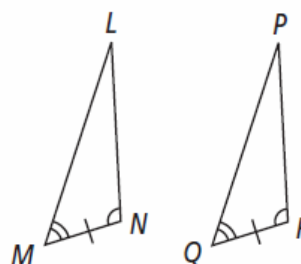
7. Which can be used to justify stating that  $\triangle FGH \cong \triangle JKL$ ?

- (A) ASA
- (B) SAS
- (C) SSS
- (D) AAS



8. Which postulate can be used to justify stating that  $\triangle LMN \cong \triangle PQR$ ?

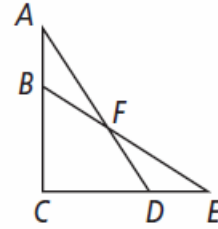
- (F) ASA
- (G) SAS
- (H) SSS
- (I) AAS



9. What is the midpoint of a segment with endpoints at  $(-2, 2)$  and  $(5, 10)$ ?

Use the figure at the right for Exercises 10-12.

Given:  $\overline{AB} \cong \overline{ED}$ ,  $\overline{BC} \cong \overline{DC}$



10. Which reason could you use to prove  $\overline{AC} \cong \overline{EC}$ ?

11. Which reason could you use to prove  $\angle C \cong \angle C$ ?

12. Which reason could you use to prove  $\triangle ACD \cong \triangle ECB$ ?

13. What is the slope of a line that passes through  $(-3, 5)$  and  $(4, 3)$ ?

14. What is the slope of a line that is perpendicular to the line that passes through  $(-2, -2)$  and  $(1, 3)$ ?

15. Draw  $\triangle ABC \cong \triangle EFG$ . Write all six congruence statements.

16. The coordinates of rectangle  $H I J K$  are  $H(-4, 1)$ ,  $I(1, 1)$ ,  $J(1, -2)$ , and  $K(-4, -2)$ . The coordinates of rectangle  $L M N O$  are  $L(-1, 3)$ ,  $M(2, 3)$ ,  $N(2, -3)$ , and  $O(-1, -3)$ . Are these two rectangles congruent? Explain. If not, how could you change the coordinates of one of the rectangles to make them congruent?