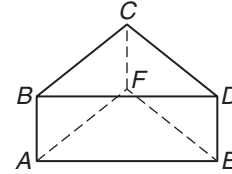# 3 Chapter 3 Test, Form 1

Write the letter for the correct answer in the blank at the right of each question.

For Questions 1–3, refer to the figure at the right.

1. Identify the plane parallel to plane *BCD*.

   A. plane *ABE*   **B.** plane *ABF*

   C. plane *AEF*   **D.** plane *DEF*

   1. _____

2. Identify a segment parallel to $\overline{CD}$.

   A. $\overline{AB}$ **B.** $\overline{AE}$ **C.** $\overline{BC}$ **D.** $\overline{EF}$

   2. _____

3. Which segment is skew to $\overline{DE}$?

   A. $\overline{AB}$ **B.** $\overline{BC}$ **C.** $\overline{BD}$ **D.** $\overline{CD}$

   3. _____

For Questions 4–7, refer to the figure at the right.

Identify the special name for each angle pair.
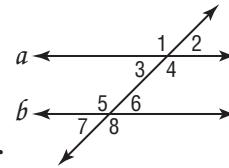
4. $\angle 1$ and $\angle 8$

   A. alternate exterior   **B.** alternate interior

   C. consecutive interior   **D.** corresponding

   4. _____

5. $\angle 3$ and $\angle 7$

   A. alternate exterior   **B.** alternate interior

   C. consecutive interior   **D.** corresponding

   5. _____

6. Given $a \parallel b$ and $m\angle 2 = 65$, find $m\angle 6$.

   A. 25   **B.** 65   **C.** 115   **D.** 140

   6. _____

7. Given $a \parallel b$ and $m\angle 3 = 5x + 10$ and $m\angle 5 = 3x + 10$, find x.

   A. 110   **B.** 70   **C.** 20   **D.** 2.5

   7. _____

For Questions 8–10, refer to the figure at the right.
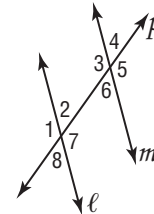
8. Which angle relationship justifies that $\ell \parallel m$?

   A. $\angle 1 \cong \angle 7$ **B.** $\angle 3 \cong \angle 4$

   C. $\angle 4 \cong \angle 5$ **D.** $\angle 6 \cong \angle 8$

   8. _____

9. If $m\angle 2 = 6x + 8$ and $m\angle 6 = 8x - 6$, find x so that $\ell \parallel m$.

   A. -7 **B.** 1   **C.** 7   **D.** 14

   9. _____

10. Given $m\angle 6 + m\angle 7 = 180$, which postulate or theorem justifies that $\ell \parallel m$?

    A. Consecutive Interior Angles Theorem

    B. Corresponding Angles Postulate

    C. Alternate Exterior Angles Theorem

    D. Alternate Interior Angles Theorem

    10. _____

                       Glencoe Geometry

Assessments

3 Chapter 3 Test, Form 1 *(continued)*

For Questions 11–12, determine the slope of the line that contains the given points.

11. $A(0, 5)$, $B(5, 0)$ 11. _____

    A. -1 **B.** 0 **C.** 1 **D.** 5

12. $F(-2, -4)$, $G(1, 2)$ 12. _____

    A. -2 **B.** $-\dfrac{1}{2}$ **C.** $\dfrac{1}{2}$ **D.** 2

13. What is the slope of a line parallel to the line containing $(-6, 1)$ and $(3, -2)$?   13. _____

    A. -3 **B.** $-\dfrac{1}{3}$ **C.** $\dfrac{1}{3}$ **D.** 3

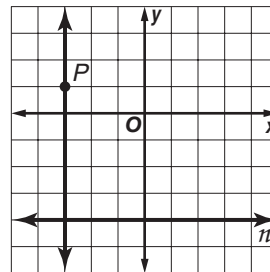**14.** Find the slope of the line perpendicular to the line containing $(0, 0)$ and $(-1, 4)$.   14. _____

    A. $-\dfrac{1}{4}$ **B.** -4 **C.** $\dfrac{1}{4}$ **D.** 4

15. Which is an equation of the line with slope 4 and a y-intercept -3?   15. _____

    A. $y = -3x + 4$ **B.** $y = -3x + \dfrac{3}{4}$ **C.** $y = 4x - 3$ **D.** $y = 4x - \dfrac{3}{4}$

16. Which is an equation of the line with slope 2 that contains $(3, 1)$?   16. _____

    A. $y - 1 = 2(x - 3)$ **B.** $y + 1 = 2(x + 3)$

    C. $y - 3 = 2(x - 1)$ **D.** $y - 3 = (x - 2)$

17. Yoga lessons cost \$5 per lesson if Kylie enrolls in the health club for a fee   17. _____
of \$120 per year. Suppose Kylie joins the health club. Which equation
represents the yearly cost C of ℓ yoga lessons?

    A. $C = 5\ell$ **B.** $C = 5\ell + 120$

    C. $C = 5\ell - 120$ **D.** $C = 5(\ell + 120)$

18. What is the distance from P to n shown in the figure?   18. _____

    A. -3

    B. 1

    C. 4

    D. 5

For Questions 19–20, find the distance between each pair of parallel lines.

19. $y = 4$ and $y = 6$ 19. _____

    A. 2 **B.** 4 **C.** 6 **D.** 10

20. $y = x$ and $y = x + 2$ 20. _____

    A. 1 **B.** 1.5 **C.** $\sqrt{2}$ **D.** 2

Bonus What is the slope of a line perpendicular to $y = -2$?   **B:** _____