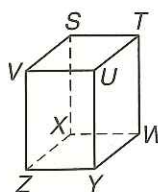


# 3 Chapter 3 Test, Form 2C

For Questions 1 and 2, refer to the figure.

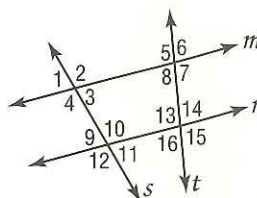
1. Identify the intersection of plane  $SVX$  and plane  $STU$ .
2. Name a segment skew to  $\overline{WY}$ .



1. \_\_\_\_\_
2. \_\_\_\_\_

For Questions 3–5, identify each pair of angles as *alternate interior*, *alternate exterior*, *corresponding*, or *consecutive interior* angles.

3.  $\angle 2$  and  $\angle 12$
4.  $\angle 3$  and  $\angle 5$
5.  $\angle 7$  and  $\angle 15$
6. Given  $m \parallel n$  and  $m\angle 8 = 86$ , find  $m\angle 13$ .
7. Find  $x$  and  $y$  given  $m \parallel n$ ,  $m\angle 4 = 6x - 5$ ,  $m\angle 10 = 5x + 8$ , and  $m\angle 9 = 3y - 10$ .



3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

Determine the slope of the line that contains the given points.

8.  $V(-10, -4)$ ,  $W(5, 5)$
9.  $A(-2, 9)$ ,  $C(2, -15)$
10.  $G(-6, 14)$ ,  $L(-3, 9)$

8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

For Questions 11–13, determine whether  $\overleftrightarrow{CS}$  and  $\overleftrightarrow{KP}$  are *parallel*, *perpendicular*, or *neither*.

11.  $C(1, -12)$ ,  $S(5, 4)$ ,  $K(1, 9)$ ,  $P(6, -6)$
12.  $C(-5, 6)$ ,  $S(-3, 2)$ ,  $K(-2, 10)$ ,  $P(1, 4)$
13.  $C(-6, -7)$ ,  $S(-3, -5)$ ,  $K(3, 3)$ ,  $P(9, 7)$

11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_

14. Printer's Ink charges \$1.18 per page  $p$  to copy a report plus \$12 to bind it. Write an equation that represents the total cost  $C$  to copy and bind a report. What would be the cost to copy and bind a 50-page report?

14. \_\_\_\_\_

# 3 Chapter 3 Test, Form 2C (continued)

Write an equation in slope-intercept form for the line that satisfies the given conditions.

15.  $m = -9$ ,  $y$ -intercept = 3

15. \_\_\_\_\_

16.  $m = 3$ , contains  $(-1, 5)$

16. \_\_\_\_\_

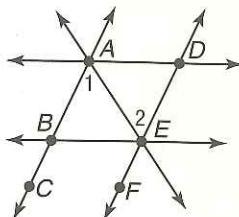
17.  $x$ -intercept is 3,  $y$ -intercept is  $-1$

17. \_\_\_\_\_

18. contains  $(-7, 9)$  and  $(6, -4)$

18. \_\_\_\_\_

For Questions 19–21, given the following information, determine which lines, if any are parallel. State the postulate or theorem that justifies your answer.



19.  $\angle 1 \cong \angle 2$

19. \_\_\_\_\_

20.  $\angle DAB \cong \angle EBC$

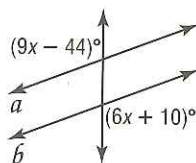
20. \_\_\_\_\_

21.  $m\angle ADE + m\angle BED = 180$

21. \_\_\_\_\_

22. Find  $x$  so that  $a \parallel b$ .

22. \_\_\_\_\_



For Questions 23 and 24, find the distance between each pair of parallel lines.

23.  $y = x - 6$  and  $y = x + 8$

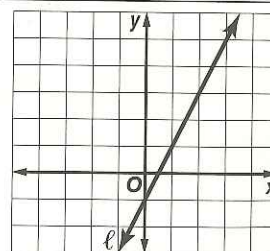
23. \_\_\_\_\_

24.  $y = -2x + 10$  and  $y = -2x - 5$

24. \_\_\_\_\_

25. Construct a line perpendicular to  $\ell$  through  $B(-2, 5)$ . Then find the distance from  $B$  to  $\ell$ .

25. \_\_\_\_\_



B: \_\_\_\_\_

**Bonus** Draw and label a figure you could use to prove the theorem *If two lines in a plane are cut by a transversal so that a pair of consecutive interior angles is supplementary, then the lines are parallel.* State the given and the statement to be proved.

# Chapter 3 Assessment Answer Key

Form 2C  
Page 167

Page 168

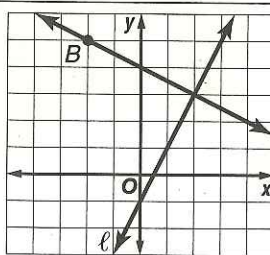
1.  $\overleftrightarrow{SV}$
2. Sample answer:  
 $\overleftrightarrow{VZ}$
3. alternate exterior
4. alternate interior
5. corresponding
6. 94
7.  $x = 13, y = 39$

8.  $\frac{3}{5}$
9. -6
10.  $-\frac{5}{3}$
11. neither
12. parallel
13. parallel
14.  $C = 1.18p + 12;$   
\$71

15.  $y = -9x + 3$
16.  $y = 3x + 8$
17.  $y = \frac{1}{3}x - 1$
18.  $y = -x + 2$

19.  $\overline{AC} \parallel \overline{DF}; \text{ alt. int. } \sphericalangle$
20.  $\overline{AD} \parallel \overline{BE}; \text{ corr. } \sphericalangle$
21.  $\overline{AD} \parallel \overline{BE}; \text{ cons. int. } \sphericalangle$
22. 18

23.  $\sqrt{98}$  or  $7\sqrt{2}$
24.  $\sqrt{45}$  or  $3\sqrt{5}$
25.  $\sqrt{20}$  or  $2\sqrt{5}$



B: Sample answer:  
Given:  $\angle 3$  and  $\angle 4$   
are supplementary  
Prove:  $l \parallel m$

