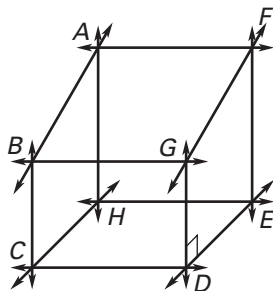


# Chapter Test C

For use after Chapter 3

In Exercises 1–4, use the diagram to complete each statement.

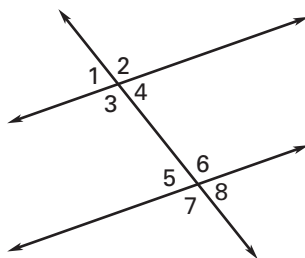
1. A line perpendicular to  $\overleftrightarrow{DE}$  is \_\_\_\_\_?
2. A line skew to  $\overleftrightarrow{CD}$  is \_\_\_\_\_?
3. A line parallel to  $\overleftrightarrow{BG}$  is \_\_\_\_\_?
4. Plane  $AHC$  is parallel to plane \_\_\_\_\_?



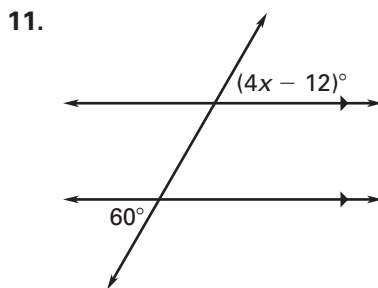
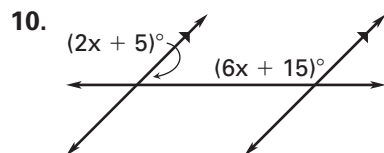
1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_

In Exercises 5–9, use the diagram to complete the statement with *corresponding*, *alternate interior*, *alternate exterior*, or *consecutive interior*.

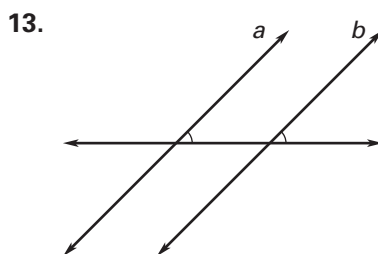
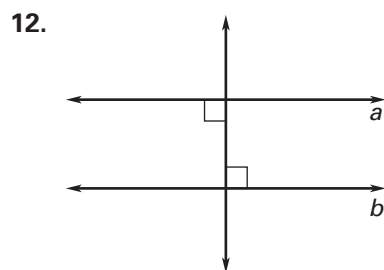
5.  $\angle 3$  and  $\angle 6$  are \_\_\_\_\_? angles.
6.  $\angle 4$  and  $\angle 6$  are \_\_\_\_\_? angles.
7.  $\angle 2$  and  $\angle 7$  are \_\_\_\_\_? angles.
8.  $\angle 1$  and  $\angle 5$  are \_\_\_\_\_? angles.
9.  $\angle 1$  and  $\angle 8$  are \_\_\_\_\_? angles.



Find the value of  $x$ .



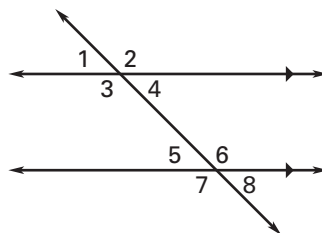
In Exercises 12 and 13, state the postulate or theorem you would use to prove that lines  $a$  and  $b$  are parallel.



# Chapter Test C

For use after Chapter 3

In Exercises 14 and 15, use the diagram to state whether the given angles are *supplementary* or *congruent*.



14.  $\angle 4$  and  $\angle 6$  are \_\_\_\_\_?
15.  $\angle 1$  and  $\angle 8$  are \_\_\_\_\_?

Find the slope of the line that passes through the given points.

16.  $A(5, 8), B(7, 11)$                       17.  $C(0, 7), D(4, 8)$
18.  $E(-1, -2), F(-6, -4)$

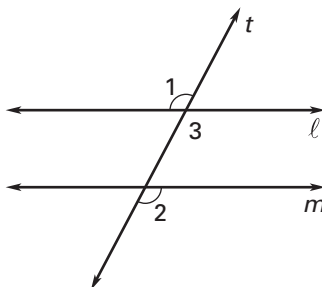
Decide whether the lines with the given equations are *perpendicular*, *parallel*, or *neither*.

19.  $y = x + 5$                                       20.  $y = \frac{2}{3}x + 2$   
 $y = -x$      $y = \frac{3}{2}x + 3$
21.  $y = \frac{1}{2}x + 3$                                       22.  $y = 4x$   
 $y = \frac{1}{2}x - 3$                                          $y = -\frac{1}{4}x$

23. Complete the proof of the Alternate Exterior Angles Converse.

Given: Transversal  $t$  cuts lines  $\ell$  and  $m$ ;  $\angle 2 \cong \angle 1$

Prove:  $\ell \parallel m$



Statements	Reasons

14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_
21. \_\_\_\_\_
22. \_\_\_\_\_
23. (See below.) \_\_\_\_\_