Name _____ Class _____ Date _____

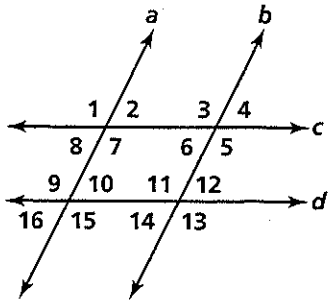
Chapter Test

Form B

Chapter 3

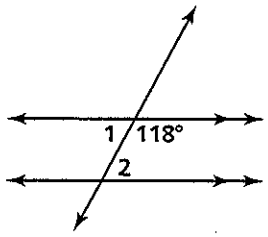
Decide whether each statement must be *true* or *false*. Use the figure for Exercises 1–8.

1. $\angle 2$ and $\angle 10$ are corresponding angles.
2. $\angle 3$ and $\angle 7$ are alternate interior angles.
3. $\angle 1$ and $\angle 8$ are same-side interior angles.
4. If $\angle 11$ and $\angle 15$ are congruent, then $a \parallel b$.
5. If $\angle 14$ and $\angle 15$ are supplementary, then $c \parallel d$.



Find $m\angle 1$ and $m\angle 2$. Determine in each exercise whether $\angle 1$ and $\angle 2$ are alternate interior angles, same-side interior angles, or corresponding angles.

6.



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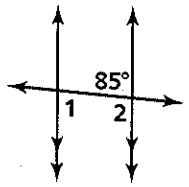

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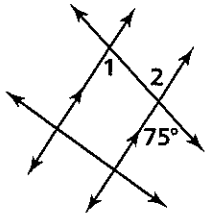


9. Graph the line $y = x - 1$. Draw the line parallel to this line that contains $(1, 2)$.
10. Graph the line $y = \frac{1}{2}x + 1$. Draw the line perpendicular to this line that contains $(-2, 1)$.

Name _____ Class _____ Date _____

Chapter Test (continued) Form B

Chapter 3

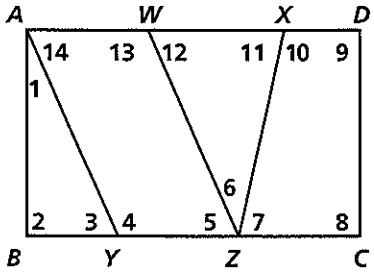
Use the given information to determine which segments must be parallel. If there are no such segments, write *none*.

11. $\angle 3 \cong \angle 14$

12. $m\angle 5 + m\angle 6 = m\angle 10$

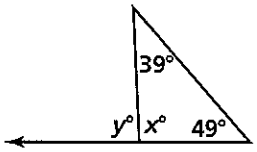
13. $m\angle 4 + m\angle 14 = 180$

14. $\overline{AW} \perp \overline{WZ}$ and $\overline{DZ} \perp \overline{WZ}$

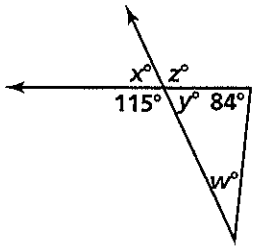


Find the values of the variables.

15.



16.



17. What is the interior angle sum of a convex decagon?

18. What is the measure of each exterior angle of a regular octagon?

Determine whether the following pairs of lines are *parallel, perpendicular,* or *neither.*

19. $y = 2x + 1$
$2x + y = 7$

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

21. $y = -4x + 1$
$4x + y = -3$

Write the equation in slope-intercept form of each line described.

22. The line is parallel to $y = 3x - 4$ and contains $(2, 5)$.

23. The line is perpendicular to $y = -4x + 1$ and contains $(8, -1)$.

24. The line has a slope of -2 and contains $(-3, 4)$.