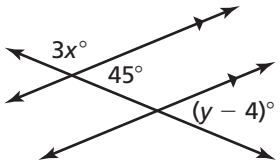
Name_____ Date _____

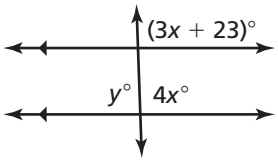
Chapter 10 Test B

Find the values of *x* and *y*. State which theorem(s) you used.

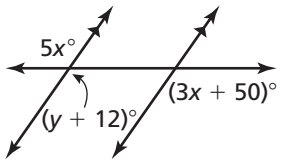
1.



2.



3.

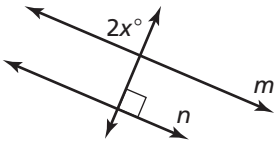


4. When two parallel lines are cut by a transversal, name the angles that are congruent.

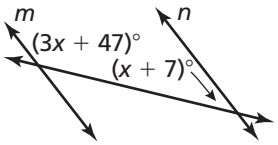
5. When two parallel lines are cut by a transversal, name the angles that are supplementary.

Find the value of *x* that makes line *m* ∥ *n*.

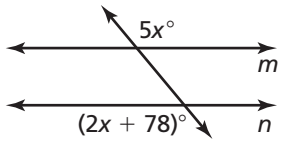
6.



7.



8.



Find the distance from point *A* to the given line.

9. $A(0, 4), y = -\frac{3}{4}x + 1$

10. $A(-3, -1), y = 5x - 6$

11. $A(-2, 2)$, line with a slope of $\frac{1}{2}$ that passes through $(-3, 0)$

12. $A(7, 10)$, line for which $f(-1) = 4$ and $f(2) = -8$

Find the distance between the parallel lines.

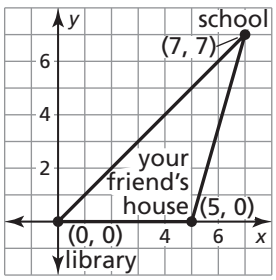
13. $y = \frac{2}{3}x, y = \frac{2}{3}x - 9$

14. $y = 3x - 5, y = 3x - 1$

15. $y = -4x + 2$, parallel line that passes through $(1, -5)$

16. $y = \frac{1}{5}x + 6$, parallel line that passes through $(5, 3)$

Use the coordinate plane diagram.



17. Find the equation of the line from your friend's house to her school.

18. Find the equation of the line from the school to the library.

19. What is the distance from your friend's house to the school?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____

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Name _____ Date _____

Chapter 10 Test B (continued)

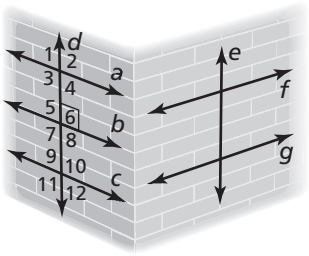
Identify an example on the box of the description. Explain your reasoning.

20. a pair of skew lines

21. a pair of perpendicular lines

22. a pair of parallel lines

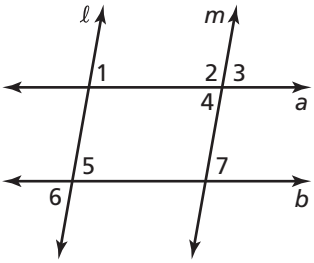
23. a pair of corresponding angles



Write a two-column proof.

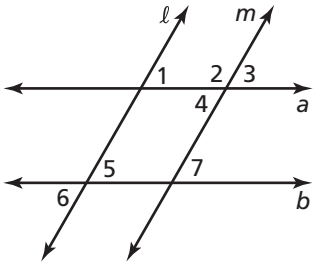
24. **Given** $\ell \parallel m$ and $\angle 1 \cong \angle 7$

Prove $a \parallel b$



25. **Given** $a \parallel b$ and $\angle 5$ is supplementary to $\angle 2$.

Prove $\ell \parallel m$



Answers

20. _____

21. _____

22. _____

23. _____

24. See left.

25. See left.

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