

Warm Up 8

1. Parallel
2. each segment measures 6 units
3. D

Lesson Practice 8

- a. 19.5 m
- b. 536 cm
- c. 96 in.
- d. 307.4 ft^2
- e. 2 cm
- f. 6 m
- g. 60 mm^2
- h. -17.8°C
- i. 212°F

Practice 8

1. even
2. $\frac{8}{9}$ in. or 0.888 in.
3. point, line, and plane
4.
 - a. Quadrant III
 - b. Quadrant II
 - c. Quadrant IV
5. 0.5
6. 9 cm and 6 cm
7. A line cannot be intersected at the same point with two different perpendicular lines. Using any point on a line as the vertex, a line has a 180° angle and to intersect it at 90° means there is only one trajectory from which the line can come.
8. 0.125 mi
9. 64
10. B
11. A
12. $\angle 5$ and $\angle 6$, $\angle 6$ and $\angle 8$, $\angle 5$ and $\angle 7$ and $\angle 7$ and $\angle 8$
13. no; Three noncollinear points define a plane.
14. Doubled side lengths: 60 m and 72 m, new perimeter: 264 m which is double the original perimeter measuring 132 m
15. The student incorrectly factored in the second step; 13
16. \overleftrightarrow{LN} or line m
17. \overrightarrow{NL} and \overrightarrow{NA}
18. a point
19. B
20. $9 + \sqrt{2}$
21. 130.82 Hz
22. 408 mm
23. 10

24. M and H
25. 180°
26. The bacteria double every 15 minutes.
27. Reflexive
28. 2 cups of flour
29. 3s

30. Showing Associative Property:

$$\begin{aligned}[f(x) + g(x)] + h(x) &= f(x) + [g(x) + h(x)] \\ [3x + 2 + -2x + 3] + 0 &= 3x + 2 + [-2x + 3 + 0] \\ [x + 5] + 0 &= 3x + 2 + [-2x + 3] \\ x + 5 &= x + 5\end{aligned}$$

Showing Commutative Property:

$$\begin{aligned}f(x) + g(x) &= g(x) + f(x) \\ (3x + 2) + (-2x + 3) &= (-2x + 3) + (3x + 2) \\ [x + 5] + 0 &= 3x + 2 + [-2x + 3] \\ x + 5 &= x + 5\end{aligned}$$