NAME _____ CLASS _____ DATE _____

Practice

7.2 Surface Area and Volume of Prisms

Find the volume of a prism with the given dimensions.

1. $B = 40$ in.^{2}, $h = 5$ in.

2. $B = 16$ m^2, $h = 6$ m

3. $B = 19$ cm^2, $h = 84$ cm

4. $B = 12$ ft^2, $h = 8.2$ ft

5. $B = 14$ cm^2, $h = 10$ cm

6. $B = 16$ ft^2, $h = 8$ ft

Find the surface area and volume of a right rectangular prism with the given dimensions.

7. $\ell = 14, w = 2, h = 15$

8. $\ell = 3, w = 6, h = 2.5$

9. $\ell = 10, w = 14, h = 4$

10. $\ell = 2.5, w = 3, h = 5.5$

11. $\ell = 6.5, w = 2.5, h = 10$

12. $\ell = 15, w = 8, h = 20$

13. Find the height of a rectangular prism with a surface area of 560 ft^2 and a base of 7 ft × 8 ft.

14. Find the surface area of a right rectangular prism with a height of 6 in. The sides of the base measure 2 in.

15. A leaning stack of playing cards in the shape of an oblique prism has the same volume as an upright stack of the same height. This is an example of _____.

16. One right prism has triangular bases with base and altitude lengths 12 and $9\sqrt{3}$, respectively. Another oblique prism has regular hexagonal bases with side lengths of 6. If the height of both prisms is 17, do they have equal volumes?