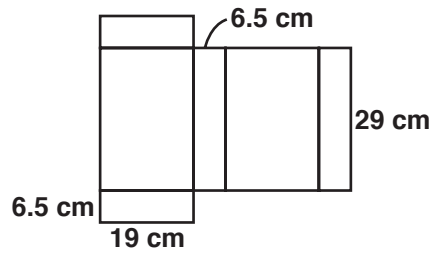
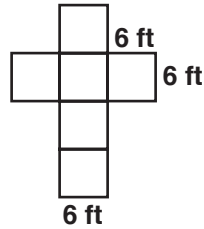


Answers for Lesson 11-2, pp. 611–614 Exercises

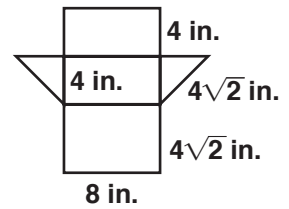
1. 1726 cm^2



2. 216 ft^2



3. $(80 + 32\sqrt{2}) \text{ in.}^2$ or about 125.3 in.^2



4. a. right hexagonal prism

b. 240 cm^2

c. $48\sqrt{3} \text{ cm}^2$

d. $(240 + 48\sqrt{3}) \text{ cm}^2$

5. 120 ft^2 ; 220 ft^2

6. 96 in.^2 ; 108 in.^2

7. 880 cm^2 ; 1121 cm^2

8. $40\pi \text{ cm}^2$

9. $16.5\pi \text{ cm}^2$

10. $101.5\pi \text{ in.}^2$

11. 36.8 cm^2

12. 236 in.^2

13. 107 in.^2

14. 226 m^2

15. 1407 cm^2

16. 20 cm

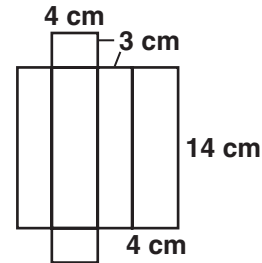
17. 150 cm^2

Answers for Lesson 11-2, pp. 611–614 Exercises (cont.)

18. A cylinder and a prism both have two $\cong \parallel$ bases. The bases of a cylinder are circles, and the bases of a prism are polygons.

19. 4080 mm^2

20. Answers may vary. Sample:



21. a. 94 units^2

b. 376 units^2

c. 4:1

d. 438 units^2 ; 1752 units^2 ; 4 : 1

e. The surface area becomes 4 times as large.

22. A

23. 47.5 in.^2

24. about 75.5 in.^2

25. a. 7 units

b. $196\pi \text{ units}^2$

26. a. $A(3, 0, 0)$; $B(3, 5, 0)$; $C(0, 5, 0)$; $D(0, 5, 4)$

b. 5

c. 3

d. 4

e. 94 units^2

27. cylinder of radius 4 and height 2; $48\pi \text{ units}^2$

28. cylinder of radius 2 and height 4; $24\pi \text{ units}^2$

29. cylinder of radius 2 and height 4; $24\pi \text{ units}^2$

30. cylinder of radius 4 and height 2; $48\pi \text{ units}^2$

Answers for Lesson 11-2, pp. 611–614 Exercises (cont.)

- 31.** a. Lateral area is doubled.
b. Surface area is more than doubled.
c. S.A. = $2\pi r^2 + 2\pi rh$; if r doubles:
S.A. = $2(4\pi r^2 + 2\pi rh)$. Since r is squared, surface area is more than doubled.
- 32.** a. $r \approx 1.2$ in.; $h = 6$ in.
b. about 54.0 in.²
- 33.** $(148 + 66.5\pi)$ cm² **34.** $(84 + 20\pi)$ m²
- 35.** $(220 - 8\pi)$ in.² **36.** $h = 6$ m; $r = 3$ m
- 37.** a. 0, 8, 12, 6, 1
b. 1728 in.²