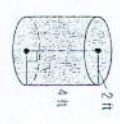


For Questions 11 and 12, use the figure.



11. Find the lateral area to the nearest tenth.
 A. 75.4 ft²
 B. 62.8 ft²
 C. 80.3 ft²
 D. 25.1 ft²

11. C

12. Find the surface area to the nearest tenth.
 A. 75.4 ft²
 B. 62.8 ft²
 C. 50.3 ft²
 D. 25.1 ft²

12. A

13. The lateral area of a regular pyramid is 300 square units. The perimeter of its base is 100 units. Find the slant height of the pyramid.
 A. 3 units
 B. 6 units
 C. 12 units
 D. 30 units

13. B

For Questions 14 and 15, use the figure.

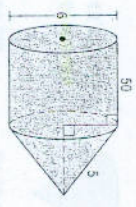


14. Find the lateral area.
 A. 108 cm²
 B. 144 cm²
 C. 162 cm²
 D. 324 cm²

14. A

15. Find the surface area.
 A. 108 cm²
 B. 144 cm²
 C. 162 cm²
 D. 324 cm²

15. B



16. Find the surface area to the nearest tenth.
 A. 546.6 units²
 B. 989.6 units²
 C. 1017.9 units²
 D. 1046.2 units²

16. C

17. The radius of a right circular cone is 6 inches and the height is 8 inches. Find the slant height.
 A. 2 in.
 B. 4 in.
 C. 10 in.
 D. 14 in.

17. C

18. A cone has a radius 17 inches long and slant height 20 inches long. Find the surface area to the nearest tenth.
 A. 18,158.4 in²
 B. 1976.1 in²
 C. 1068.1 in²
 D. 340 in²

18. B

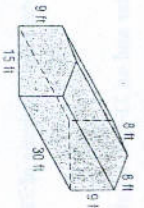
19. Which could be the intersection of a sphere and a plane?
 A. line
 B. square
 C. oval
 D. point

19. D

20. A sphere has a diameter 42 centimeters long. Find the surface area to the nearest tenth.
 A. 5541.8 cm²
 B. 2770.9 cm²
 C. 2167.1 cm²
 D. 527.8 cm²

20. A

Bonus Find the amount of glass needed to cover the sides of the greenhouse shown. The bottom, front, and back are not glass.



B: 1020 ft²

Write the letter for the correct answer in the blank at the right of each question.

1. Which of these is part of an orthogonal drawing?
 A. a perspective view
 B. a corner view
 C. a two-dimensional top view
 D. a three-dimensional view

1. C

For Questions 2-4, use the figure.



2. A

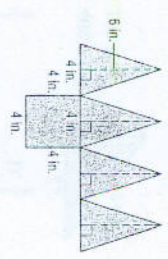
2. Identify this solid figure.
 A. square pyramid
 B. square prism
 C. triangular pyramid
 D. triangular prism

3. B

3. Name the base.
 A. $\triangle ABE$
 B. $\square ABCD$
 C. $\triangle CDE$
 D. E

4. D

4. How many edges does this figure have?
 A. 3
 B. 4
 C. 6
 D. 8



5. B

5. This net could be folded into a _____.
 A. tetrahedron
 B. square pyramid
 C. square prism
 D. triangular prism



6. D

6. Find the surface area of this solid.
 A. 9 in²
 B. 27 in²
 C. 36 in²
 D. 54 in²

7. B

7. The areas of how many faces of a rectangular prism would be included in the lateral area?
 A. 2
 B. 4
 C. 6
 D. 8

8. D

8. Find the surface area of a rectangular prism with a length of 8 inches, a width of 6 inches, and a height of 2 inches.
 A. 15 in²
 B. 66 in²
 C. 80 in²
 D. 132 in²

9. C

9. The area of each face of a cube is 60 square centimeters. Find the surface area of the cube.
 A. 120 cm²
 B. 240 cm²
 C. 360 cm²
 D. 3600 cm²

10. D

10. The lateral area of a right cylinder with a radius of 10 feet is 320π square feet. Find the surface area of the cylinder.
 A. 220π ft²
 B. 360π ft²
 C. 420π ft²
 D. 520π ft²