

Practice for Q4OBQ2 - All work on looseleaf.

Date _____ Period _____

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Use the information provided to write the equation of each circle.

- 1) Ends of a diameter: $(11, -15)$ and $(-3, 3)$ 2) Ends of a diameter: $(6, 12)$ and $(8, -8)$
 3) Ends of a diameter: $(2, 15)$ and $(2, -17)$ 4) Ends of a diameter: $(-5, 7)$ and $(13, -9)$

Write the slope-intercept form of the equation of the line described.

- 5) through: $(-5, 2)$, parallel to $y = -x + 5$ 6) through: $(5, 1)$, parallel to $y = \frac{1}{5}x - 5$
 7) through: $(-5, -2)$, parallel to $y = \frac{4}{9}x + 4$ 8) through: $(-5, 4)$, perp. to $y = x + 3$
 9) through: $(-5, -4)$, perp. to $y = -\frac{5}{6}x + 4$ 10) through: $(-5, 0)$, perp. to $y = -\frac{8}{3}x + 3$

Find the area of each regular polygon. Round your answer to the nearest tenth if necessary.

- 11) octagon
apothem = 14
side = 11.6
 12) nonagon
apothem = 13.2
side = 9.6
 13) triangle
apothem = 6.5
side = 22.5
 14) triangle
apothem = 2.3
side = 8
 15) triangle
apothem = 13
side = 45
 16) triangle
apothem = 2.9
side = 10

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

- 17) A hexagonal prism 7 yd tall with a regular base measuring 9 yd on each edge and an apothem of length 7.8 yd.
 18) A hexagonal prism 12 km tall with a regular base measuring 6 km on each edge and an apothem of length 5.2 km.
 19) A hexagonal prism 10 km tall with a regular base measuring 10 km on each edge and an apothem of length 8.7 km.
 20) A cylinder with a diameter of 6 yd and a height of 10 yd.
 21) A cylinder with a radius of 5 m and a height of 10 m.
 22) A cylinder with a diameter of 16 ft and a height of 5 ft.

Find the volume of each figure. Round your answers to the nearest thousandth, if necessary.

- 23) A hexagonal prism 6 m tall with a regular base measuring 8 m on each edge and an apothem of length 6.9 m.
 24) A square prism measuring 9 yd along each edge of the base and 4 yd tall.
 25) A prism 10 ft tall. The base is a trapezoid whose parallel sides measure 7 ft and 4 ft. The other sides are each 3 ft. The altitude of the trapezoid measures 2.6 ft.
 26) A prism 4 ft tall with a right triangle for a base with side lengths 6 ft, 8 ft, and 10 ft.
 27) A trapezoidal prism of height 14 m. The parallel sides of the base have lengths 11 m and 7 m. The other sides of the base are each 7 m. The trapezoid's altitude measures 6.7 m.
 28) A square prism measuring 8 ft along each edge of the base and 9 ft tall.
 29) A rectangular prism measuring 8 cm and 10 cm along the base and 10 cm tall.
 30) A rectangular prism measuring 10 cm and 11 cm along the base and 6 cm tall.

Answers to Practice for Q4OBQ2 - All work on looseleaf. (ID: 11)

1) $(x - 4)^2 + (y + 6)^2 = 130$

2) $(x - 7)^2 + (y - 2)^2 = 101$

3) $(x - 2)^2 + (y + 1)^2 = 256$

4) $(x - 4)^2 + (y + 1)^2 = 145$

5) $y = -x - 3$

6) $y = \frac{1}{5}x$

7) $y = \frac{4}{9}x + \frac{2}{9}$

8) $y = -x - 1$

9) $y = \frac{6}{5}x + 2$

10) $y = \frac{3}{8}x + \frac{15}{8}$

11) 649.6

12) 570.2

13) 219.4

14) 27.6

15) 877.5

16) 43.5

17) 799.2 yd²

18) 619.2 km²

19) 1122 km²

20) 245.04 yd²

21) 471.24 m²

22) 653.45 ft²

23) 993.6 m³

24) 324 yd³

25) 143 ft³

26) 96 ft³

27) 844.2 m³

28) 576 ft³

29) 800 cm³

30) 660 cm³