

Q4HW2 - All work on looseleaf.

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Date_____ Period_____

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

- 1) Ends of a diameter: $(2, 10)$ and $(-8, -5)$ 2) Ends of a diameter: $(7, -4)$ and $(-7, -13)$

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

- 3) through: $(4, -1)$, parallel to $y = -\frac{1}{8}x - 4$ 4) through: $(1, 1)$, perp. to $y = 3x - 2$

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

- 5) triangle
apothem = 8
side = 27.7
- 6) triangle
apothem = 16
side = 55.4

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

- 7) A hexagonal prism 11 km tall with a regular base measuring 8 km on each edge and an apothem of length 6.9 km.
- 8) A cylinder with a diameter of 8 yd and a height of 12 yd.

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

- 9) A square prism measuring 3 m along each edge of the base and 2 m tall.
- 10) A trapezoidal prism of height 6 ft. The parallel sides of the base have lengths 7 ft and 3 ft. The other sides of the base are each 4 ft. The trapezoid's altitude measures 3.5 ft.
- 11) A hexagonal prism 11 ft tall with a regular base measuring 11 ft on each edge and an apothem of length 9.5 ft.
- 12) A prism 2 m tall with a right triangle for a base with side lengths 3 m, 4 m, and 5 m.
- 13) A cylinder with a radius of 6 cm and a height of 4 cm.
- 14) A pentagonal prism 11 ft tall with a regular base measuring 10 ft on each edge and an apothem of length 6.9 ft.
- 15) A hexagonal prism 4 cm tall with a regular base measuring 12 cm on each edge and an apothem of length 10.4 cm.
- 16) A hexagonal prism 11 in tall with a regular base measuring 7 in on each edge and an apothem of length 6.1 in.