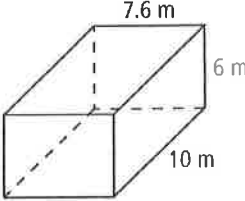


Math Applications
Quiz Review Worksheet
Section 14.4-14.5

Name: Key

Find the volume of each prism. Round your answer the nearest hundredth (2 decimal places).

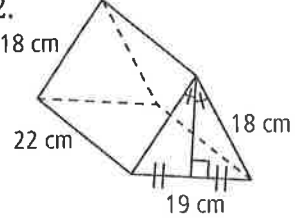
1.



$$V = (10)(7.6)(6)$$

$$= 456 \text{ m}^3$$

2.



$$V = \frac{1}{2}(19)(15.29)(22)$$

$$= 3195.61 \text{ cm}^3$$

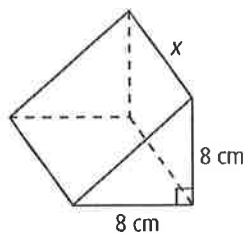
$$9.5^2 + h^2 = 18^2$$

$$h^2 = 233.75$$

$$h = 15.29$$

3. Find the value of x , given the volume.

Volume = 576 cm^3



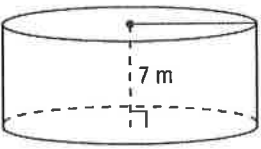
$$576 = \frac{1}{2}(8)(8)(x)$$

$$576 = 32x$$

$$x = 18 \text{ cm}$$

Find the volume of each cylinder. Round your answer to the nearest hundredth.

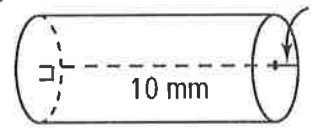
4.



$$V = \pi(8.5)^2(7)$$

$$= 1588.86 \text{ m}^3$$

5.

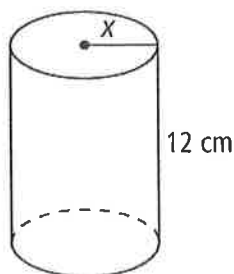


$$V = \pi(2)^2(10)$$

$$= 125.66 \text{ mm}^3$$

6. Find the value of x , given the volume.

Volume = 602.88 cm^3



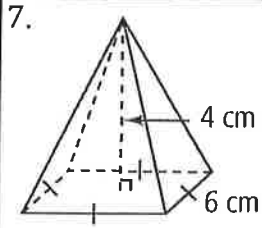
$$602.88 = \pi(x)^2(12)$$

$$50.24 = \pi x^2$$

$$15.99 = x^2$$

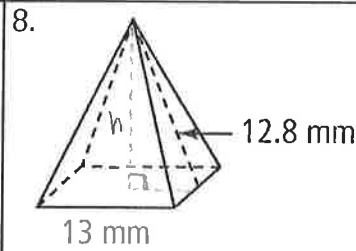
$$x = 4 \text{ cm}$$

Find the volume of each pyramid. Round your answer to the nearest hundredth.



$$V = \frac{1}{3}(6)(6)(4)$$

$$= 48 \text{ cm}^3$$



$$6.5^2 + h^2 = 12.8^2$$

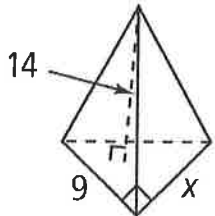
$$h^2 = 121.59$$

$$h = 11.03$$

$$V = \frac{1}{3}(13)(13)(11.03)$$

$$= 601.36 \text{ mm}^3$$

10. Find the value of x , given the volume.



Volume = 126

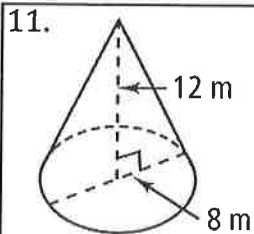
$$\frac{3}{4} \cdot 126 = \frac{1}{3} \left(\frac{1}{2}(9)(x) \right) (14) \cdot \frac{3}{4}$$

$$\frac{3}{4} \cdot 378 = \frac{1}{8}(9)(x)(14) \cdot \frac{3}{4}$$

$$756 = (9)(x)(14)$$

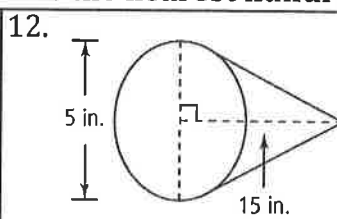
$$x = 6$$

Find the volume of each cone. Round your answer to the nearest hundredth.



$$V = \frac{1}{3}(\pi(4)^2)(12)$$

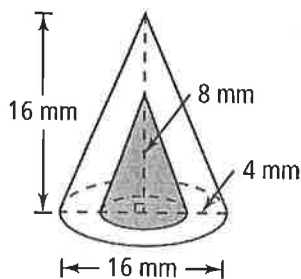
$$= 201.06 \text{ m}^3$$



$$V = \frac{1}{3}(\pi(15)^2)(5)$$

$$= 98.17 \text{ m}^3$$

13. Find the volume of the white part of the following cone.



$$V(\text{big}) = \frac{1}{3}(\pi(8)^2)(16)$$

$$= 1072.33 \text{ mm}^3$$

$$V(\text{small}) = \frac{1}{3}(\pi(4)^2)(8)$$

$$= 134.04 \text{ mm}^3$$

$$V(\text{white}) = 1072.33 - 134.04$$

$$= 938.29 \text{ mm}^3$$