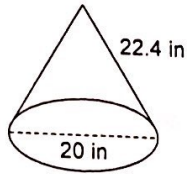


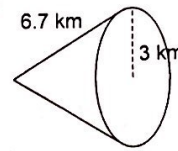
Find the surface area and Volume of each figure. Exact answers in simplest form.

1)



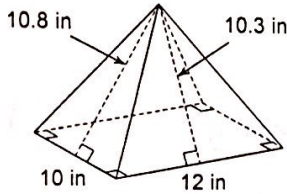
$$SA = 324\pi \text{ in}^2 \approx 1017.88 \text{ in}^2$$

2)



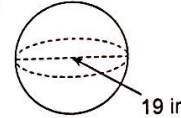
$$SA = 29.1\pi \text{ km}^2 \approx 91.42 \text{ km}^2$$

3)



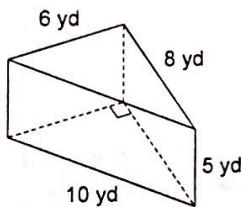
$$SA = 351.6 \text{ in}^2$$

4)



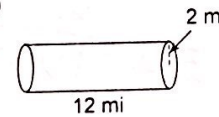
$$SA = 361\pi \text{ in}^2 = 1134.11 \text{ in}^2$$

5)



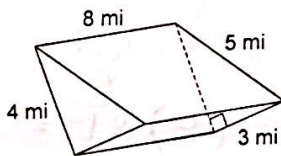
$$SA = 168 \text{ yd}^2$$

6)



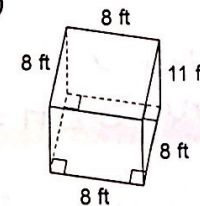
$$SA = 56\pi \text{ mi}^2 \approx 175.93 \text{ mi}^2$$

7)



$$SA = 108 \text{ mi}^2$$

8)



$$SA = 480 \text{ ft}^2$$

9) A rectangular pyramid measuring 10 mi and 12 mi along the base, with slant heights of 10.8 mi and 10.3 mi, respectively.

$$SA = 351.6 \text{ mi}^2$$

10) A cone with diameter 18 in and a slant height of 20.1 in.

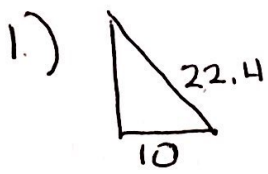
$$SA = 261.9\pi \text{ in}^2 \approx 822.78 \text{ in}^2$$

11) A pyramid with slant height 8.5 km whose triangular base measures 10 km on each side. Each altitude of the base measures 8.7 km.

$$SA = 171 \text{ km}^2$$

12) A rectangular prism measuring 4 in and 5 in along the base and 5 in tall.

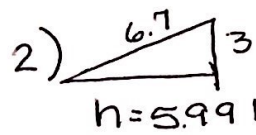
$$SA = 130 \text{ in}^2$$



$h = 20.04$

$V = \frac{Bh}{3} = \frac{\pi(10)^2(20.04)}{3}$
 $= 668.13\pi = 2098.998 \text{ in}^3$

3.) $h = 8.98$
 $V = \frac{Bh}{3} = 10(12)(8.98) \approx 359.20 \text{ in}^2$



$h = 5.991$
 $V = \frac{Bh}{3} = \frac{\pi(3)^2(5.991)}{3} = 17.97\pi = 56.46 \text{ km}^2$

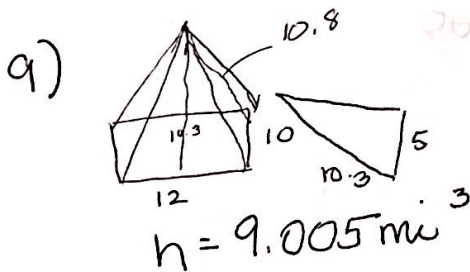
4.) $V = \frac{4}{3}\pi(9.5)^3$
 $= 1143.17\pi \text{ in}^3$
 $= 3591.36 \text{ in}^3$

5.) $V = Bh$
 $= \frac{48}{2}(5)$
 $= 120 \text{ yd}^3$

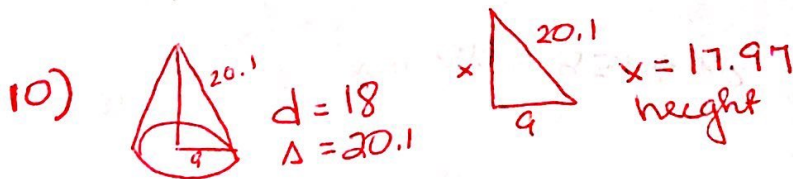
6.) $V = Bh = \pi(2)^2(12)$ 7.)
 $= 48\pi \text{ m}^3$
 $= 150.796 \text{ m}^3$

7.) $V = \frac{Bh}{6}(8) = 48 \text{ m}^3$

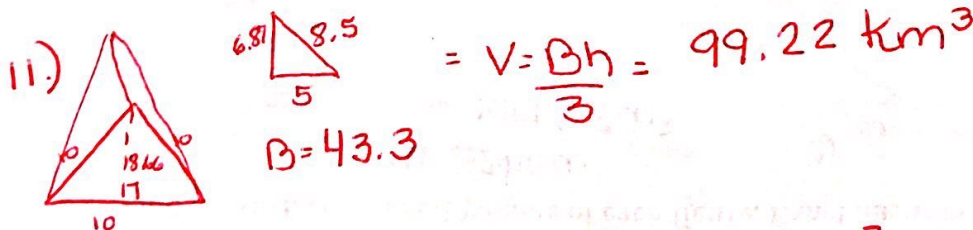
8.) $V = \frac{Bh}{8}(8) = 704 \text{ ft}^3$



$V = \frac{Bh}{3} = \frac{12(10)(9.005)}{3}$
 $= 360.20 \text{ m}^3$



$h = \frac{Bh}{3} = \frac{\pi(9)^2(17.97)}{3}$
 $= 485.26\pi \text{ in}^3$
 $= 1524.48 \text{ in}^3$



$B = 43.3$
 $V = \frac{Bh}{3} = 99.22 \text{ km}^3$
 12.) $V = Bh = 4(5)(5) = 100 \text{ in}^3$