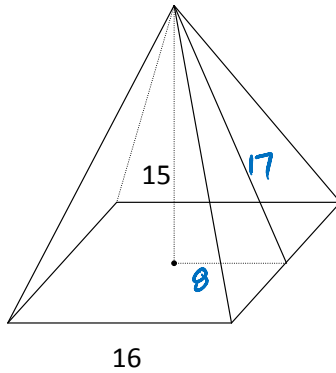


Geometry G  
Surface Area Review Homework

Name \_\_\_\_\_

Find the lateral area and surface area of each figure. Be sure to give exact answers.

1) Regular Pyramid



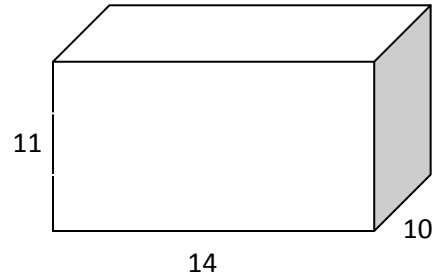
Lateral Area: 544

Surface Area: 800

$$LA = \frac{(16 \cdot 4) \cdot 17}{2}$$

$$SA = 544 + (16 \cdot 16)$$

2)



Lateral Area: 528

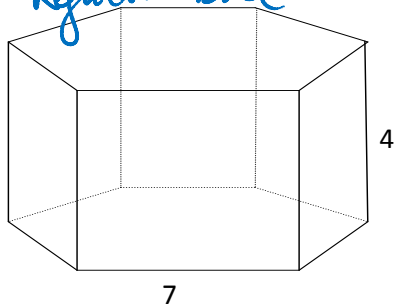
Surface Area: 808

$$LA = (14 + 10 + 14 + 10) \cdot 11$$

$$SA = 528 + 2(14 \cdot 10) \\ = 528 + 2(140)$$



3) *Regular Base*



$$LA = (6 \cdot 7) \cdot 4$$

$$A = \frac{7^2 \sqrt{3}}{4}$$

$$= (12.25 \sqrt{3}) \cdot 6 = 73.5 \sqrt{3}$$

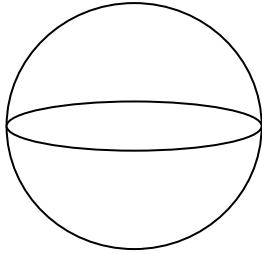
Lateral Area: 168

Surface Area: 168 + 147\sqrt{3}

$$SA = 168 + 2(73.5 \sqrt{3}) \\ = 168 + 147 \sqrt{3}$$

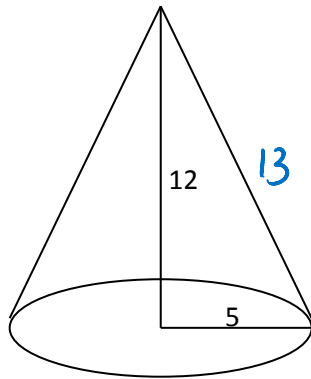
4) Diameter = 18

Surface Area:  $324\pi$



$$SA = 4\pi 9^2$$

5)



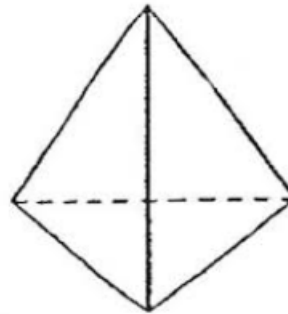
Lateral Area:  $65\pi$

Surface Area:  $90\pi$

$$LA = \frac{(10\pi)(13)}{2}$$

$$SA = 65\pi + \pi 5^2$$

6) Regular triangular pyramid with base length of 9 and slant height of 7.



Lateral Area: 94.5

Surface Area:  $94.5 + 20.25\sqrt{3}$

$$LA = \frac{(3 \cdot 9)7}{2}$$

$$SA = 94.5 + \frac{9^2\sqrt{3}}{4}$$

$$= 94.5 + 20.25\sqrt{3}$$