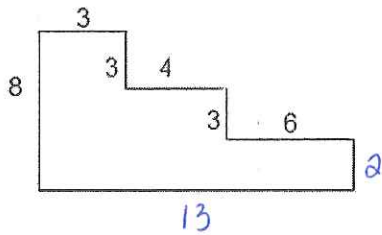


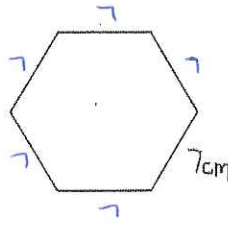
Area & Volume Review

Name: Answer Key

Find the perimeter of the following:

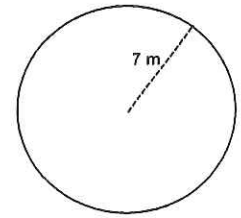


$$P = 8 + 3 + 3 + 4 + 3 + 6 + 2 + 13 = \boxed{42 \text{ units}}$$



$$P = 7 + 7 + 7 + 7 + 7 + 7$$

$$\boxed{P = 42 \text{ cm}}$$



$$r = 7$$

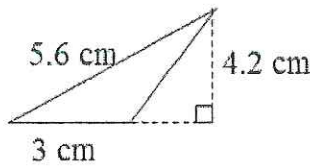
$$d = 14$$

$$C = \pi d$$

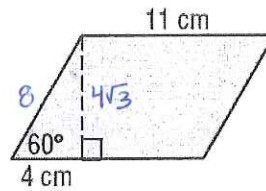
$$C = \pi (14)$$

$$\boxed{C = 43.98 \text{ m}}$$

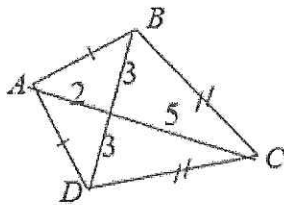
Find the area of the following:



$$A = \frac{1}{2}(3)(4.2) = \boxed{6.3 \text{ cm}^2}$$



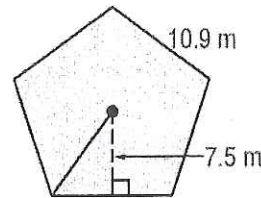
$$A = (4)(4\sqrt{3}) = \boxed{76.2 \text{ cm}^2}$$



$$d_1 = 6$$

$$d_2 = 7$$

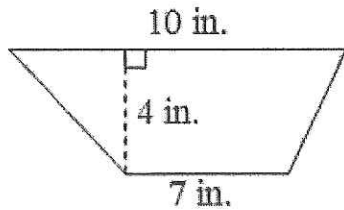
$$A = \frac{1}{2}(6)(7) = \boxed{41 \text{ u}^2}$$



$$a = 7.5$$

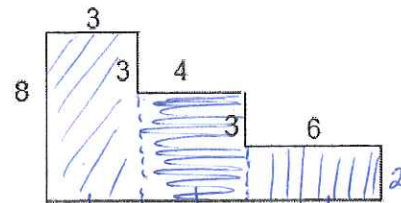
$$P = 54.5$$

$$A = \frac{1}{2}(7.5)(54.5) = \boxed{204.375 \text{ m}^2}$$



$$A = \frac{1}{2}(4)(10+7)$$

$$= \boxed{34 \text{ in}^2}$$



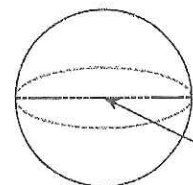
$$8(3) \quad 4(3) \quad 6(2)$$

$$24 + 20 + 12 = \boxed{56 \text{ u}^2}$$

Find the surface area and volume for the sphere:

$$S.A. = 4\pi(6^2) = \boxed{452.4 \text{ cm}^2}$$

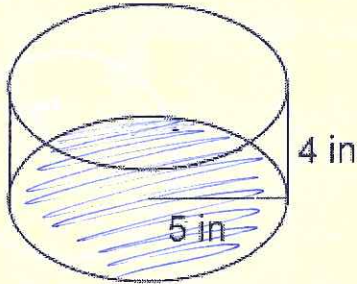
$$V = \frac{4}{3}\pi(6^3) = \boxed{904.8 \text{ cm}^3}$$



$$d = 12$$

$$r = 6$$

Use the following 3-D shapes to find the area and volume:

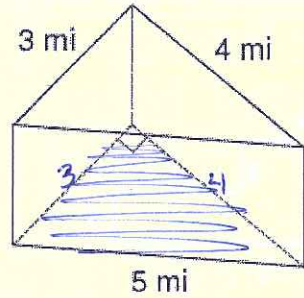


$r = 5$
 $h = 4$

Lateral Area = $\frac{2\pi(5)(4)}{1} = 125.7 \text{ in}^2$

Surface Area = $\frac{125.7 + 2(\pi 5^2)}{1} = 282.8 \text{ in}^2$

Volume = $\frac{\pi(5^2)(4)}{1} = 314.2 \text{ in}^3$

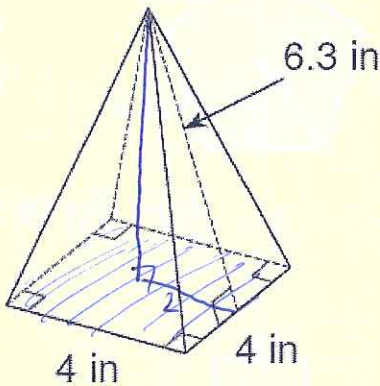


$P = 12$
 $h = 5$
 $B = \frac{1}{2}(3)(4)$
triangle

Lateral Area = $\frac{(12)(5)}{1} = 60 \text{ mi}^2$

Surface Area = $\frac{60 + 2(\frac{1}{2}(3)(4))}{2(5)} = 72 \text{ mi}^2$

Volume = $\frac{(\frac{1}{2}(3)(4))(5)}{6(5)} = 30 \text{ mi}^3$

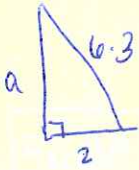


$p = 16$
 $l = 6.3$
 $h = 6$
 $B = 16$
4x4 Square

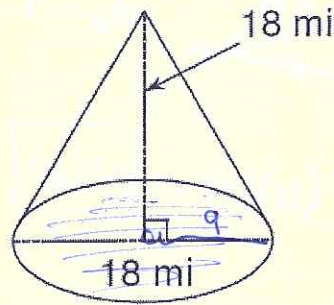
Lateral Area = $\frac{1}{2}(16)(6.3) = 50.4 \text{ in}^2$

Surface Area = $\frac{50.4 + (4)(4)}{1} = 66.4 \text{ in}^2$

Volume = $\frac{1}{3}(16)(6) = 32 \text{ in}^3$



$a^2 + 2^2 = 6.3^2$
 $\sqrt{a^2} = \sqrt{35.69}$
 $a = 5.97$
 $a = 6$



$r = 9$
 $h = 18$
 $l = 20.12$
 $B = \pi 9^2$

Lateral Area = $\frac{\pi(9)(20.12)}{1} = 568.9 \text{ mi}^2$

Surface Area = $\frac{568.9 + \pi 9^2}{1} = 823.3 \text{ mi}^2$

Volume = $\frac{1}{3}(\pi 9^2)(18) = 1526.8 \text{ mi}^3$

