5-23-18

Aim: SWBAT find the estimated surface area and volume of a prism or pyramid.

HW: 2-D & 3-D Assessment Friday (Open notes)
Final Review Packet due Tuesday

Do Now: Check hw

Pg. 557

1. Surface Area is total area of all the flat surfaces that make up the shape and volume is the amount of space the shape occupies.

2. base; height

(3) $V = Bh$
$V = (6 \cdot 2)(11)$
$V = 132\ m^3$

(4) $V = Bh$
$V = (7 \cdot 7)(7)$
$V = 343\ in.^3$

(13) $V = Bh$
$V = (8 \cdot 4)(2)$
$V = 64\ yd^3$

(15) $V = Bh$
$V = (\frac{1}{2} \cdot 7 \cdot 24)(15)$
$V = 1260\ m^3$

Pg. 568 # 5, 6, 8, 9, 11, 12

(5) $V = \frac{1}{3}Bh$

$V = \frac{1}{3}(9)(4)$

$V = 12\ in^3$

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

$V = \frac{1}{3}(12)(15)$

$V = 60\ ft^3$

(8) $V = \frac{1}{3}Bh$

$V = \frac{1}{3}(15 \cdot 15)(4)$

$V = \frac{1}{3}(900)$

$V = 300\ m^3$

(9) $V = \frac{1}{3}Bh$

$V = \frac{1}{3}(12 \cdot 12)(3)$

$V = \frac{1}{3}(432)$

$V = 144\ yd.^3$

(11) $V = \frac{1}{3}Bh$

$V = \frac{1}{3}(16 \cdot 24)(20)$

$V = \frac{1}{3}(7680)$

$V = 2560\ m^3$

(12) $V = \frac{1}{3}Bh$

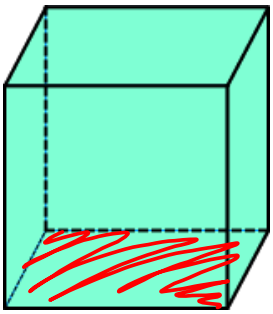
$V = \frac{1}{3}(25 \cdot 29)(17)$

$V = \frac{1}{3}(12325)$

$V = 4108.333\ldots$

$V \approx 4108.3\ in^3$

Cube



3.6 in.

≈ 4 in.

Find the estimated surface area.

$SA = 2B + Ph$

$SA \approx 2(4 \cdot 4) + (4+4+4+4) \cdot 4$

$SA \approx 32 + 64$

$SA \approx 96 \text{ in.}^2$

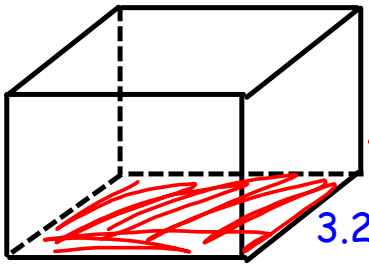
Find the estimated volume.

$V = Bh$

$V \approx (4 \cdot 4) \cdot 4$

$V \approx 64 \text{ in.}^3$

Rectangular Prism



Find the estimated surface area.

$SA = 2B + Ph$

$SA \approx 2(4 \cdot 3) + (4+4+3+3) \cdot 2$

$SA \approx 24 + 28$

$SA \approx 52 \text{ in.}^2$

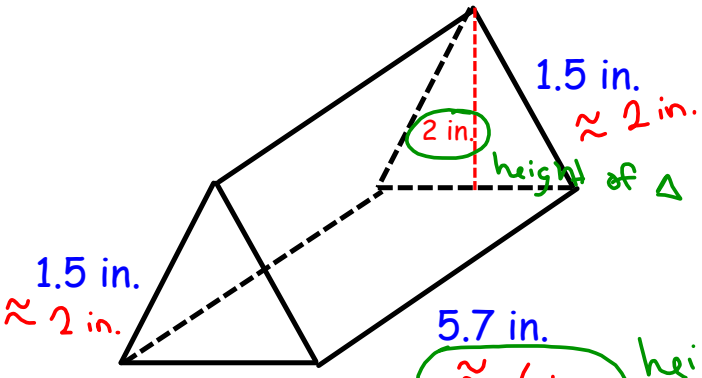
Find the estimated volume.

$V = Bh$

$V \approx (4 \cdot 3) \cdot 2$

$V \approx 24 \text{ in.}^3$

Triangular Prism



Find the estimated surface area.

$SA = 2B + Ph$

$SA \approx 2\left(\frac{2 \cdot 2}{2}\right) + (2+2+2) \cdot 6$

$SA \approx 4 + 36$

$SA \approx 40 \text{ in.}^2$

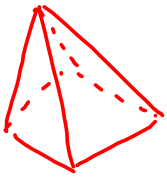
Find the estimated volume.

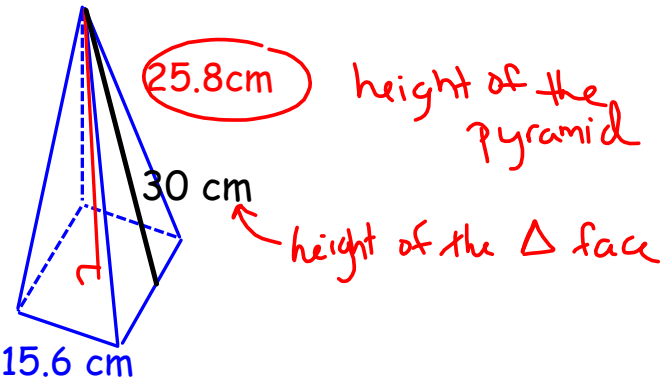
$V = Bh$

$V \approx \left(\frac{2 \cdot 2}{2}\right) \cdot 6$

$V \approx 12 \text{ in.}^3$

Square Pyramid





Find the estimated surface area.

$SA = B + \frac{1}{2}Pl$

$SA \approx (16 \cdot 16) + \frac{1}{2}(16+16+16+16)(30)$

$SA \approx 256 + \frac{1}{2}(64)(30)$

$SA \approx 256 + 960$

$SA \approx 1216\ cm^2$

Find the estimated volume.

$V = \frac{1}{3}Bh$

$V \approx \frac{1}{3}(16 \cdot 16) \cdot 26$

$V \approx 2218\frac{2}{3}\ cm^3$