

Surface Area of Regular Pyramids

Review

Prism =

faces
Edges
Vertices

2 Bases
Lateral faces
are rectangles

Bases
give
prism its name.

Pyramid = faces
Edges
Vertices

1 Base
Lateral faces
are triangles

Bases
give pyramid its name.

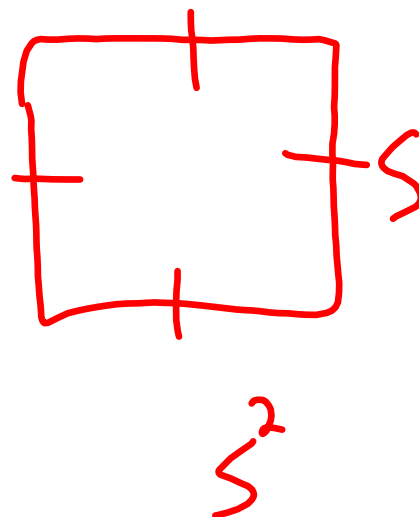
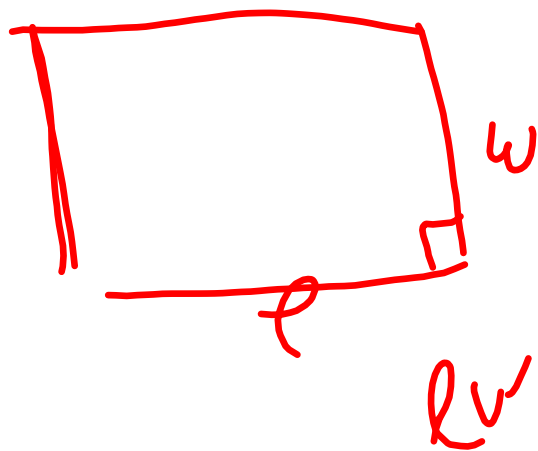
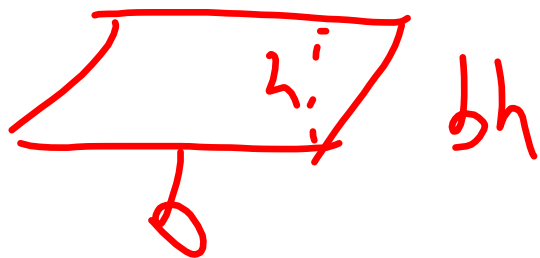
B

Area of Polygon

b

length of a line

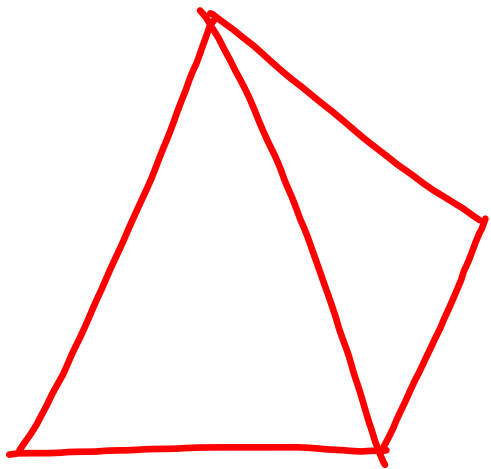
lower case letters
in geometry



$$A = bh = B \text{ of } \text{rectangle}$$

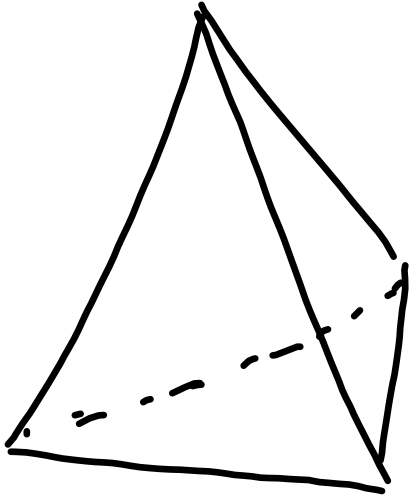
$$A = \frac{1}{2}bh = B \text{ of } \triangle$$

$$A = \frac{1}{2}(b_1 + b_2)h = B \text{ of } \text{trapezoid}$$



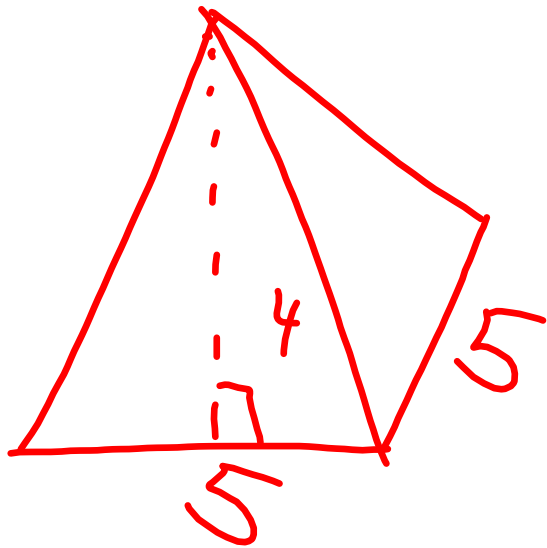
Square Pyramid
Surface Area

$$B + 4S$$

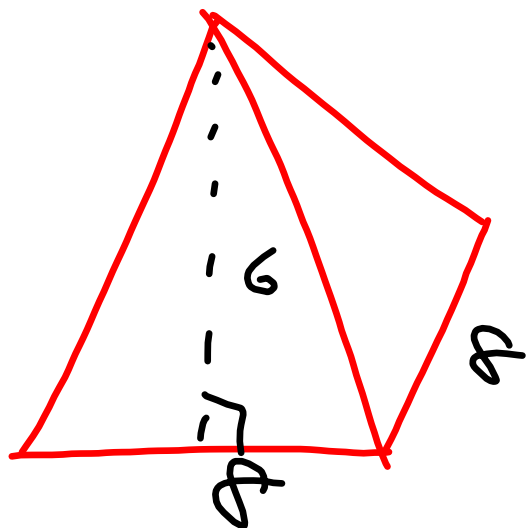


Triangular Pyramid
Surface Area

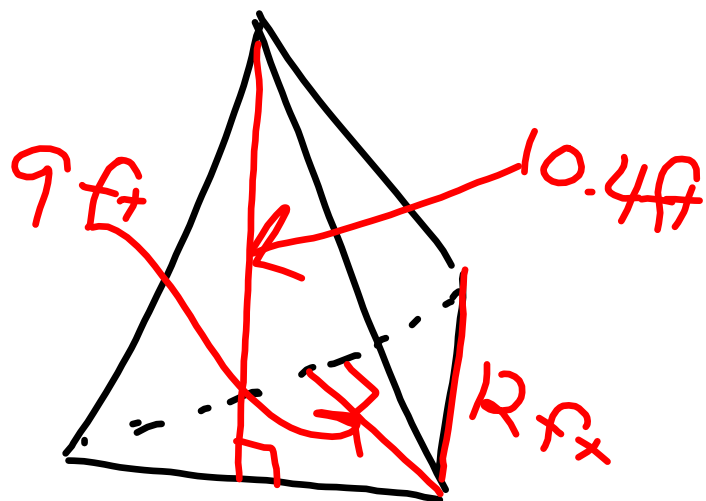
$$B + 3S$$



$$\begin{aligned} & B + 4S \\ & \downarrow \quad \downarrow \\ & s^2 + 4\left(\frac{1}{2}bh\right) \\ & 5^2 + 4 \cdot \frac{1}{2} \cdot 5 \cdot 4 \\ & 25 + 2 \cdot 5 \cdot 4 \\ & 25 + 40 \\ & \textcircled{65 \text{ in}^2} \end{aligned}$$



$$\begin{aligned} & B + 4S \\ & s^2 + 4\left(\frac{1}{2}bh\right) \\ & 8^2 + 4 \cdot \frac{1}{2} \cdot 8 \cdot 6 \\ & 64 + 4 \cdot 4 \cdot 6 \\ & 64 + 96 \\ & 160 \text{ in}^2 \end{aligned}$$



$$\begin{aligned} & B + 3S \\ & \frac{1}{2}bh + 3\left(\frac{1}{2}bh\right) \\ & \frac{1}{2} \cdot 12 \cdot 9 + 3 \cdot \frac{1}{2} \cdot 12 \cdot 10.4 \\ & 6 \cdot 9 + 3 \cdot 6 \cdot 10.4 \\ & 54 + 18 \cdot 10.4 \\ & 54 + 187.2 \\ & \mathbf{241.2 \text{ ft}^2} \end{aligned}$$

Class work

Hardcover

Pg 372

6, 7, +

10

Homework
Soft cover
Pg 192