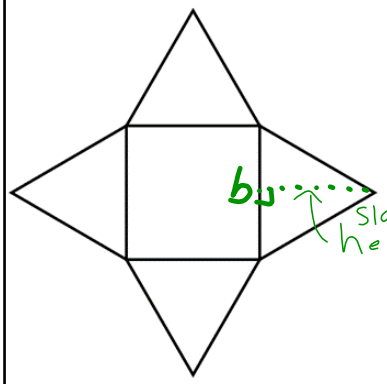
Pyramids Examples

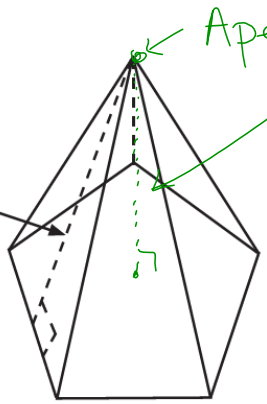


1. How could you find the surface area of this pyramid?

$A_{\triangle} = \frac{bh}{2}$

2. How could you find the lateral area of this pyramid?

Pyramids



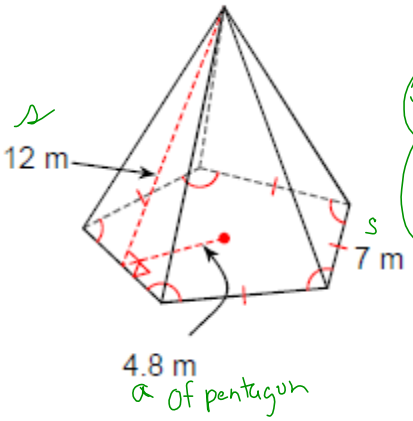
slant height

pentagonal pyramid

Base: pentagon
Faces: triangles

Pyramids Examples

Pyramids



Lateral Area

Rule:

$$A_L = \frac{P_b \times s}{2}$$

P_b: perimeter of base; s: slant height

Example

① $A_L = \frac{P_b \times s}{2}$

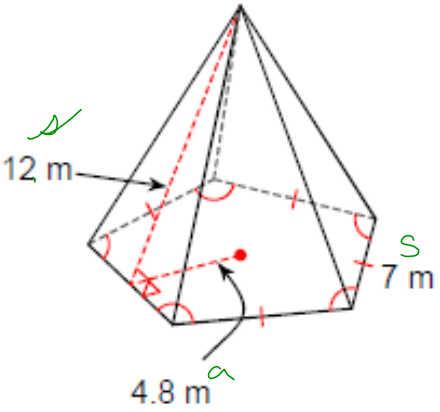
② $P_b = sn$

$P_b = 7(5) = 35\text{cm}$

③ $A_L = \frac{35(12)}{2} = \frac{420}{2} = 210\text{ m}^2$

$A_L = 210\text{m}^2$

Pyramids



Surface Area

Rule

$$A_T = A_b + A_L$$

① $A_T = A_b + A_L$

② $A_T = \frac{san}{2} + \frac{P_b \times s}{2}$

③ $A_T = \frac{(7)(4.8)(5)}{2} + \frac{35(12)}{2}$

$A_T = \frac{168}{2} + \frac{420}{2}$

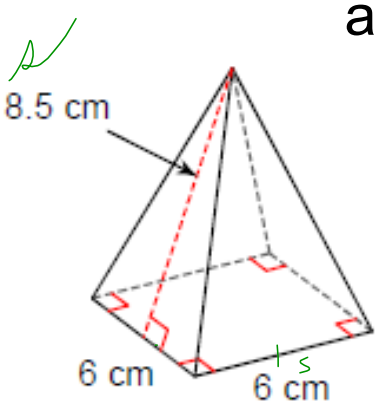
$A_T = 84 + 210$

$A_T = 294\text{m}^2$

Pyramids Examples

Example

Find the lateral and surface area of the pyramid



① $A_L = \frac{P_b \times s}{2}$

② $P_b = 6(4) = 24\text{cm}$

③ $A_L = \frac{24 \times 8.5}{2}$

$A_L = \frac{204}{2} = 102\text{cm}^2$

$A_L = 102\text{cm}^2$

Surface Area

① $A_T = A_b + A_L$

② $A_T = s^2 + 102$

③ $A_T = 6^2 + 102$ $A_T = 36 + 102$

$A_T = 138\text{cm}^2$