Bellwork 3/28/16

Find the surface area of this pyramid by finding the area of...

one square base + 4 triangular faces

![Pyramid Diagram]

Section 11-3: Pyramid Day

**Vocabulary**

- **Pyramid**: A polyhedron with...
  - Only 1 Base (square)
  - Lateral Faces (triangles)
  - # of Lateral Faces = # of sides of base

- **Slant height**: Measured from apex to base on outside of pyramid (stairs)

- **Height**: Measured from apex to base inside pyramid (elevator)

**BE CAREFUL!!!**

**For area, we need Slant Height**

...think surface area is outside the pyramid so is slant height!!

**Surface Area**

\[ S = B + \frac{1}{2} PL \]

- \( B \): Area of base
- \( P \): Perimeter of base
- \( L \): Slant height

11-2 pt 2

- p. 703
- 2) 192.4 ft²
- 4) 534.1 m²
- 14) 288\pi, 904.8 \text{ in}²
- 18) 528 + 72\pi
- 20) 236 \text{ in}²
- 26) 914.7 \text{ mm}²

- p. 721
- 14) 82 \text{ in}²
- 23. \( h = 40 \text{ cm} \)

- P. 706 # 40
Example 1:

10 in. \[ S = B + \frac{1}{2} Pl \]

Example 2:

Example 3:

Find the slant height of the regular pyramid if the area of the base is 1024 in\(^2\)

For volume, we use Height.

Height...think volume is on the inside and height is on the inside!!

Specific Formulas

Pyramid: \[ V = \frac{1}{3} BH \]
Example 1:

10 in.  7 in.  6 in.

$B = \frac{1}{2} BH$
$\approx 40.5$

$V = \frac{1}{3} (10 \cdot 7)$
$\approx 20.57$

$\sqrt{419.08 \text{ ft}^3}$

11-3 Pyramid Assignment

p. 713 # 10, 14, 26, 50
p. 730 # 12, 25, 28, 43

• Show Work!