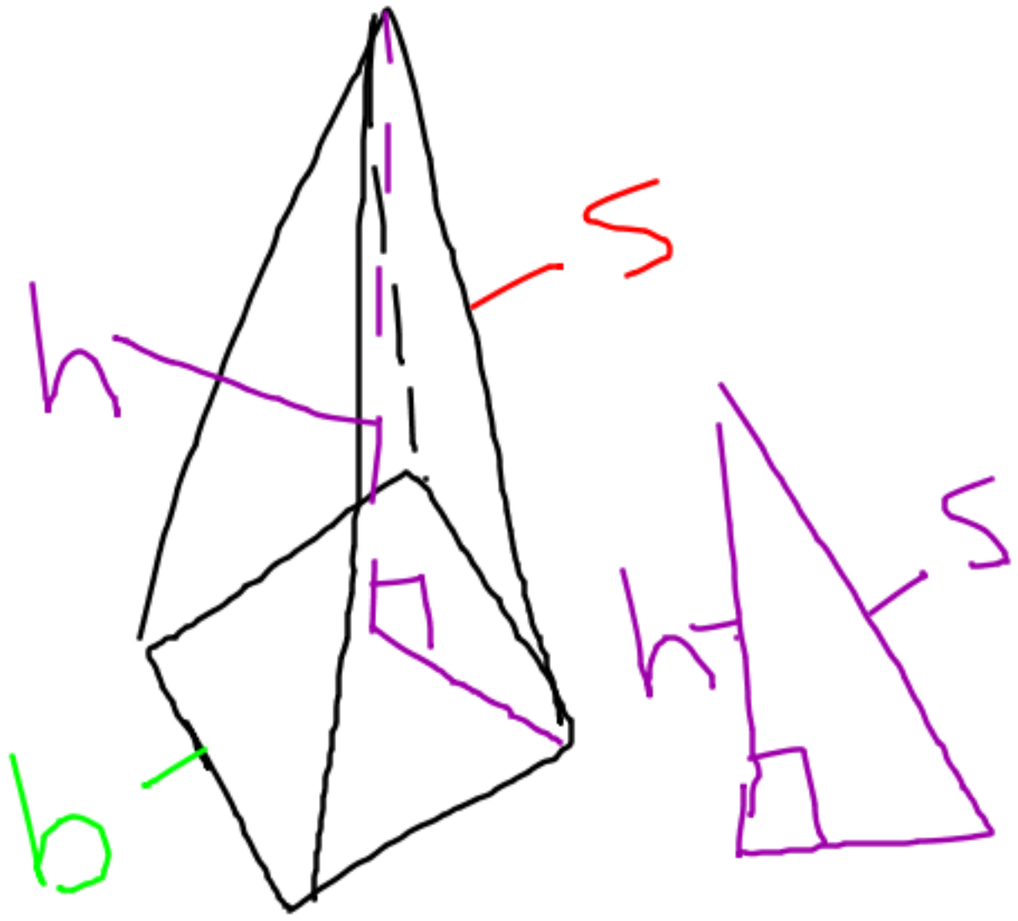
$$SA = 4\left(\frac{bs}{2}\right) + b^2$$

$$V = \frac{b^2 h}{3}$$



(8) Surface Area and Volume of Square-Based Pyramids.ks-ipa - Infinite Pre-Algebra

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3.15 pages

12 questions

Current question sets (4):

4 × Finding the Surface Area of Solids Given a D
4 × Finding the Volume of Solids Given a Diagra
2 × Finding the Surface Area of Solids Given a D
2 × Finding the Volume of Solids Given a Diagra

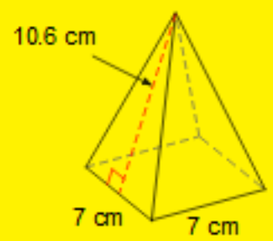
Grade 11 College Math Name_____

Surface Area and Volume of Square-Based Pyramids

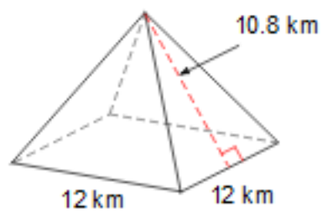
Date_____

Find the surface area of each figure. Round to the nearest tenth.

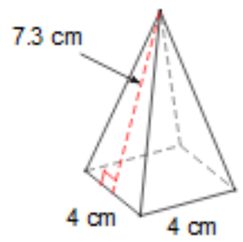
1)



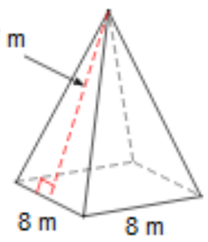
2)



3)



4)



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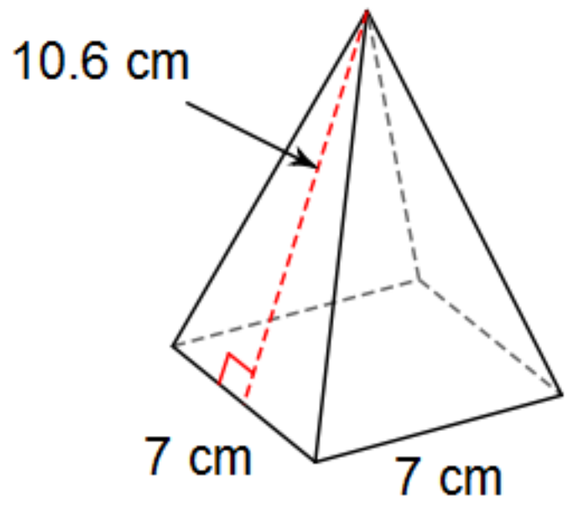
1/8/2018

Infinite Pre-Algebra

Find the surface area of each figure. Round to the nearest tenth.

1)



$SA = 4\left(\frac{bs}{2}\right) + b^2$

$SA = 4\left(\frac{(7)(10.6)}{2}\right) + 7^2$

$SA = 4\left(\frac{74.2}{2}\right) + 49$

$s = 10.6\text{cm}$

$b = 7\text{cm}$

$SA = 148.4 + 49$

$SA = 197.4\text{cm}^2$

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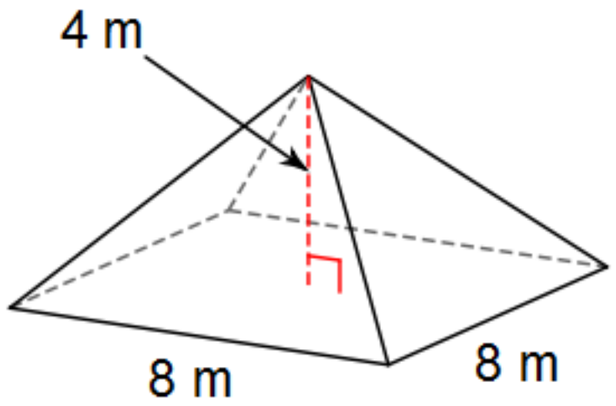
Infinite Pre-Algebra

Find the volume of each figure. Round to the nearest tenth.

5)



$$V = \frac{b^2 h}{3}$$

$$V = \frac{(8^2)(4)}{3}$$

$b = 8$

$$V = \frac{(64)(4)}{3}$$

$h = 4$

$$V = 85.3\ m^3$$

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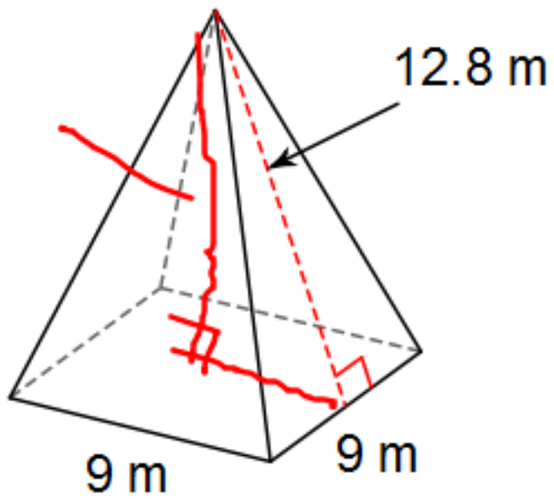
Infinite Pre-Algebra

Show

Find both the surface area AND volume of each figure. You may need to solve for h or s using the Pythagorean Theorem. Round to the nearest tenth.

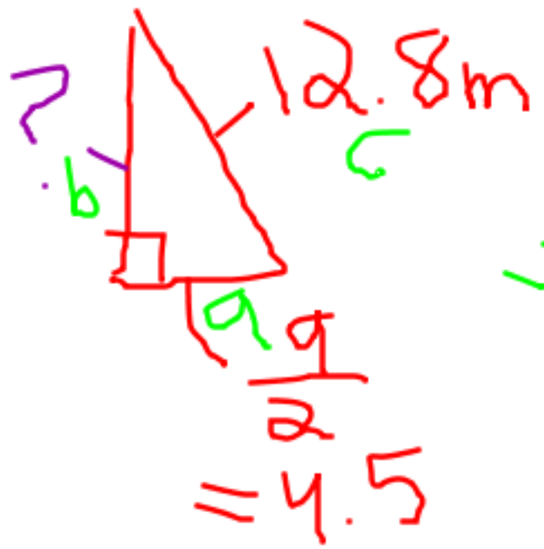
9)



$b = 9m$

$s = 12.8$

$h = ?$



$a^2 + b^2 = c^2$

$4.5^2 + b^2 = 12.8^2$

$-20.25 \quad -20.25$

$20.25 + b^2 = 163.84$

$\sqrt{b^2} = \sqrt{143.59}$

$b = 12\ m$

$h = 12\ m$

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$$SA = 4\left(\frac{bs}{2}\right) + b^2$$

$$= 4\left(\frac{(9)(12.8)}{2}\right) + 9^2$$

$$= 230.4 + 81$$

$$SA = 311.4 m^2$$

$$V = \frac{b^2 h}{3}$$

$$= \frac{(9^2)(12)}{3}$$

$$V = 324\ m^3$$