Unit 1: Square Roots and Surface Area

① $\sqrt{\frac{18 \div 2}{32 \div 2}} = \sqrt{\frac{9}{16}} = \frac{3}{4}$

Estimate, using benchmarks

② $\sqrt{\frac{3}{101}} \doteq \sqrt{\frac{4}{100}}$

$\sqrt{\frac{4}{100}} = \frac{2 \div 2}{10 \div 2} = \frac{1}{5}$

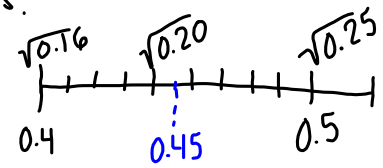
$\therefore$ means therefore

$\therefore \sqrt{\frac{3}{101}} \doteq \frac{1}{5}$

③ Estimate using benchmarks.

$\sqrt{0.20}$

$\sqrt{0.16} = 0.4$ $\sqrt{0.25} = 0.5$



$\therefore \sqrt{0.20} \doteq 0.44$

Jan 8-8:25 AM

④ Find a # that has a square root between 1.5 and 1.6.

Working backwards question: inverse of square root is squaring

$(1.5)^2 = 2.25$

$(1.6)^2 = 2.56$

<u>Answer</u>: Any # between 2.25 and 2.56 but not including these #'s.

2.26, 2.27, . . ., 2.54, 2.55

Jan 8-8:36 AM

⑤ Side Length of Square $= \sqrt{\text{Area}}$

Jan 8-11:32 AM

Surface Area of Composite Objects.

<u>Note</u>: Find the total surface area of all objects and subtract two times the overlapping region.

$SA_{cylinder} = [2\pi r^2] + [2\pi r h]$ * The only given formula *

$SA_{\text{rectangular prism}} = [2 \cdot L \cdot W] + [2 \cdot L \cdot H] + [2 \cdot W \cdot H]$

$SA_{\text{triangular prism}} = [2 \times \underbrace{\text{Area of Triangle}}_{\frac{bh}{2}}] + [\underbrace{\text{Area of Side 1}}_{L \cdot W}] + [\underbrace{\text{Area of Side 2}}_{L \cdot W}] + [\underbrace{\text{Area of Side 3}}_{L \cdot W}]$

Jan 8-8:41 AM