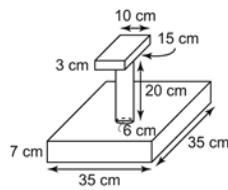


Warm up

Find the surface area.



Little Box

$$A_{\text{top/bottom}} = bh \times 2 = (10)(15) \times 2 = 300 \text{ cm}^2$$

$$A_{\text{sides}} = bh \times 2 = (15)(3) \times 2 = 90 \text{ cm}^2$$

$$A_{\text{front/back}} = bh \times 2 = (10)(3) \times 2 = 60 \text{ cm}^2$$

$$A_{\text{total}} = 450 \text{ cm}^2$$

Big Box

$$A_{\text{cylinder}} = 2\pi r^2 + 2\pi rh = 2\pi(3)^2 + 2\pi(3)(20) = 18\pi + 120\pi = 138\pi$$

$$A_{\text{front/back}} = bh \times 2 = (7)(35) \times 2 = 490 \text{ cm}^2$$

$$A_{\text{sides}} = bh \times 2 = (7)(35) \times 2 = 490 \text{ cm}^2$$

Overlap = 4 circles

$$= 2\pi r^2 + 2\pi r^2 = 18\pi + 18\pi = 36\pi$$

$$A_{\text{top/bottom}} = bh \times 2 = (0.5)(35) \times 2 = 35 \text{ cm}^2$$

$$A_{\text{total}} = 3430 \text{ cm}^2$$

$$A_{\text{total}} = A_{\text{small box}} + A_{\text{large box}} + A_{\text{cylinder}} - \text{overlap}$$

$$= 450 + 3430 + 138\pi - 36\pi$$

$$= 3880 + 102\pi$$

$$= 4200.4 \text{ cm}^2$$

Unit 1 test tomorrow

1. Without a calculator find... (show work)

a)  $\sqrt{41}$

$$\sqrt{36} \quad \sqrt{49}$$

$$6 \quad 7$$

$$6.4$$

b)  $\sqrt{115}$

$$\sqrt{100} \quad \sqrt{121}$$

$$10 \quad 11$$

$$10.7$$

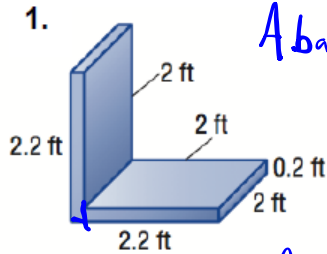
2. The area of an enclosed square field is 68.4 m<sup>2</sup>. What is the amount of fencing around the field?

$$\sqrt{68.4} = 8.2 \text{ m width}$$

$$P = 8.2 \times 4 = 32.8 \text{ m}$$

## Page 5 of Practice Test questions 1-5

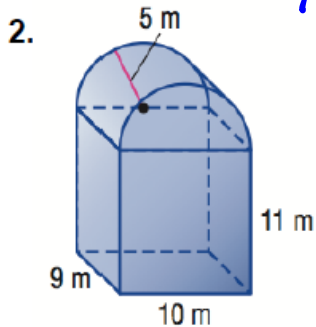
- find surface area (not volume)



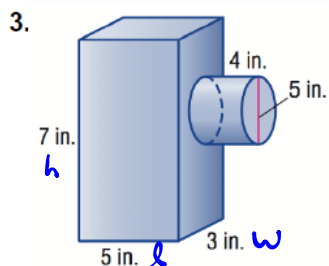
$$\begin{aligned}
 A_{\text{back}} &= \overset{\text{back}}{(2.2)(2)} + \overset{\text{top edge}}{2(0.2)} + \overset{\text{Side edge}}{2.2(0.2)} + \overset{\text{front}}{(2)(2)} \\
 &= 4.4 + 0.4 + 0.88 + 4 \\
 &= 9.68 \text{ ft}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{front}} &= \overset{\text{top}}{(2)(2)} + \overset{\text{bottom}}{2.2(2)} + \overset{\text{Side edge}}{(2)(0.2)} \times 2 + (2)(0.2) \\
 &= 4 + 4.4 + 0.8 + 0.4 \\
 &= 9.6 \text{ ft}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{TOTAL}} &= 9.68 + 9.6 \\
 &= 19.28 \text{ ft}^2
 \end{aligned}$$



$$A_{\frac{1}{2} \text{ cylinder}} = (2\pi r^2 + 2\pi r h) \div 2$$



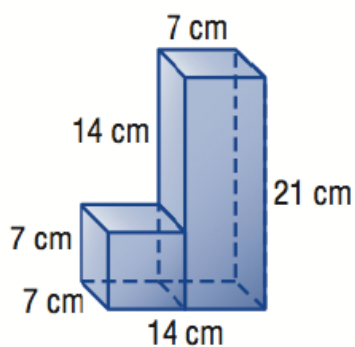
$$\begin{aligned}
 A_{\text{cylinder}} &= 2\pi r^2 + 2\pi rh \\
 &= 2\pi(2.5)^2 + 2\pi(2.5)(4) \\
 &= 12.5\pi + 20\pi \\
 &= 32.5\pi
 \end{aligned}$$

$$\begin{aligned}
 \text{Box } A &= 2lw + 2lh + 2wh \\
 &= 2(5)(3) + 2(5)(7) + 2(3)(7) \\
 &= 30 + 70 + 42 \\
 &= 142 \text{ in}^2
 \end{aligned}$$

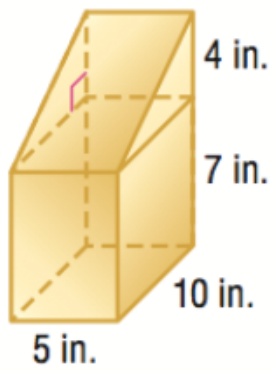
$$\begin{aligned}
 \text{Overlap} &= 2 \text{ circles} \\
 &= 12.5\pi
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{total}} &= 32.5\pi + 142 - 12.5\pi \\
 &= 20\pi + 142 \\
 &= 204.83 \text{ in}^2
 \end{aligned}$$

4.



5.



## Attachments

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v\_\_sa\_of\_composite\_figures.pdf