

## Questions from the homework?

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$$\begin{aligned}
 \underline{3a)} \quad A_{\text{cylinder}} &= 2\pi r^2 + 2\pi rh \\
 &= 2\pi(1)^2 + 2\pi(1)(4) \\
 &= 2\pi + 8\pi \\
 &= 10\pi \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{box}} &= bh \times 6 \\
 &= 4 \times 4 \times 6 \\
 &= 96 \text{ cm}^2
 \end{aligned}
 \qquad
 \begin{aligned}
 \text{Overlap} &= \pi r^2 \times 2 \\
 &= \pi(1)^2 \times 2 \\
 &= 2\pi
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{total}} &= 10\pi + 96 - 2\pi \\
 &= 8\pi + 96 \\
 &= 121.1 \text{ cm}^2
 \end{aligned}$$

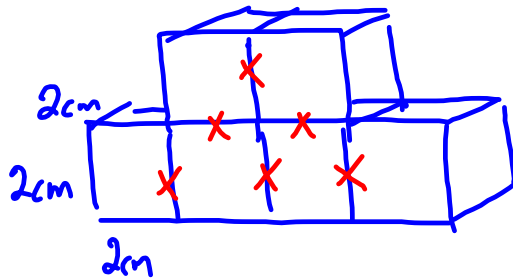
$$\begin{aligned}
 3b) \quad A_{\text{cylinder}} &= 2\pi r^2 + 2\pi rh \\
 &= 2\pi(0.5)^2 + 2\pi(0.5)(3) \\
 &= 0.5\pi + 3\pi \\
 &= 3.5\pi \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{box}} &= 2lw + 2lh + 2wh \\
 &= 2(6 \times 4) + 2(6 \times 3) + 2(3 \times 4) \\
 &= 48 + 36 + 24 \\
 &= 108 \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 \text{overlap} &= 2\pi r^2 \\
 &= 0.5\pi
 \end{aligned}
 \qquad
 \begin{aligned}
 A_{\text{total}} &= 3.5\pi + 108 - 0.5\pi \\
 &= 3\pi + 108 \\
 &= 117.4 \text{ cm}^2
 \end{aligned}$$

## Homework

Page 40 3 c, d, e



$$\begin{aligned}
 A(1 \text{ face}) &= bh \\
 &= 2 \times 2 \\
 &= 4 \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{cube}} &= 4 \times 6 \\
 &= 24 \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A(6 \text{ cubes} \\ \text{separated}) &= 24 \times 6 \\
 &= 144 \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 \text{Overlap} &= 12 \times 4 \\
 &= 48 \text{ cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{total}} &= 144 - 48 \\
 &= 96 \text{ cm}^2
 \end{aligned}$$