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$$\begin{aligned}
 3. c) \quad A_{\text{top}} &= 2\pi r^2 + 2\pi rh \\
 &= 2\pi(5)^2 + 2\pi(5)(2) \\
 &= 50\pi + 20\pi \\
 &= 70\pi
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{bottom}} &= 2\pi r^2 + 2\pi rh \\
 &= 2\pi(1)^2 + 2\pi(1)(10) \\
 &= 2\pi + 20\pi \\
 &= 22\pi
 \end{aligned}$$

$$\begin{aligned}
 \text{overlap} &= \pi r^2 \times 2 \\
 &= \pi(1)^2 \times 2 \\
 &= 2\pi
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{total}} &= 70\pi + 22\pi - 2\pi \\
 &= 90\pi \\
 &= 283\text{cm}^2
 \end{aligned}$$

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$$\begin{aligned}
 3. d) \quad A_{\text{cube}} &= 3 \times 3 \times 6 \\
 &= 54\text{cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{front}} &= 6 \times 15 \\
 &= 90\text{cm}^2
 \end{aligned}$$

$$A_{\text{triangle}} = \frac{bb}{2} \times 2$$

$$\begin{aligned}
 &= \frac{(12)(9) \times (2)}{2} \\
 &= 108\text{cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{right}} &= 9 \times 6 \\
 &= 54\text{cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{left}} &= 12 \times 6 \\
 &= 72\text{cm}^2
 \end{aligned}$$

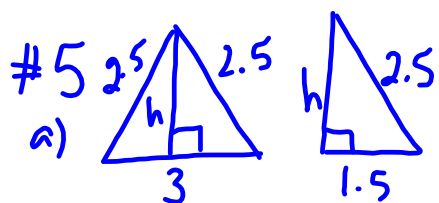
$$\begin{aligned}
 \text{overlap} &= 3 \times 3 \times 2 \\
 &= 18\text{cm}^2
 \end{aligned}$$

$$\begin{aligned}
 A_{\text{total}} &= 54 + 108 + 90 + 54 + 72 - 18 \\
 &= 360\text{cm}^2
 \end{aligned}$$

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Homework

4, 5a



$$\begin{aligned} a^2 &= c^2 - b^2 \\ &= 2.5^2 - 1.5^2 \\ &= \end{aligned}$$