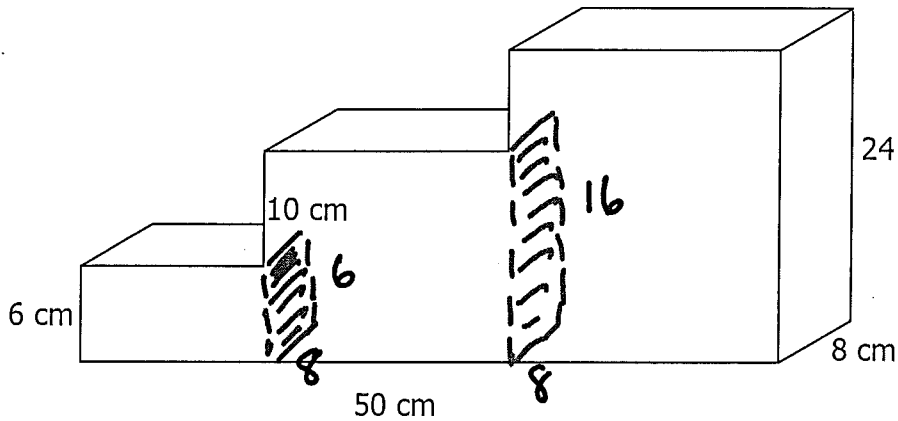
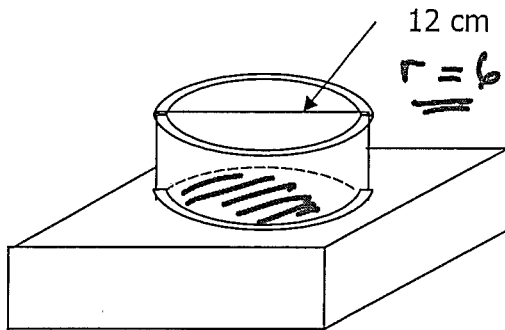


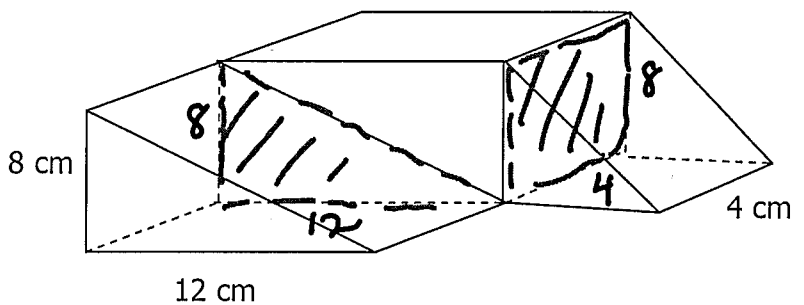
Find the area of overlap for the following



$$\begin{aligned} \textcircled{1} & 8 \times 6 = 48 \\ \textcircled{2} & 8 \times 16 = 128 \\ \hline \text{Total} & = 176 \text{ cm}^2 \end{aligned}$$

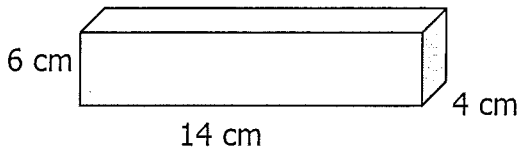


$$\begin{aligned} A &= \pi r^2 \\ &= \pi (6)^2 \\ &= 113.1 \text{ cm}^2 \end{aligned}$$

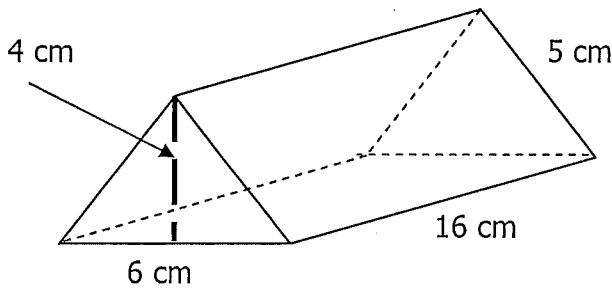


$$\begin{aligned} \textcircled{1} & A = \frac{12 \times 8}{2} = 48 \text{ cm}^2 \\ \textcircled{2} & A = 4 \times 8 = 32 \text{ cm}^2 \\ \hline \text{Total} & = 80 \text{ cm}^2 \end{aligned}$$

Find the surface area of the following shapes. $SA = 2lw + 2lh + 2wh$



$$\begin{aligned}
 &= 2(14 \times 4) + 2(14 \times 6) + 2(4 \times 6) \\
 &= 112 + 168 + 48 \\
 &= 328 \text{ cm}^2
 \end{aligned}$$



① 2 triangles

$$A = 2 \times \left(\frac{6 \times 4}{2} \right) = 24 \text{ cm}^2$$

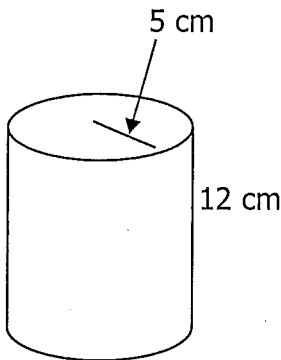
② Bottom

$$A = 6 \times 16 = 96 \text{ cm}^2$$

③ Sides

$$A = 2 \times (16 \times 5) = 160 \text{ cm}^2$$

$$\text{Total} = 286 \text{ cm}^2$$



$$\begin{aligned}
 SA &= 2\pi r^2 + 2\pi rh \\
 &= 2\pi (5)^2 + 2\pi (5)(12) \\
 &= 157.08 + 376.99
 \end{aligned}$$

$$SA = 534.07 \text{ cm}^2$$