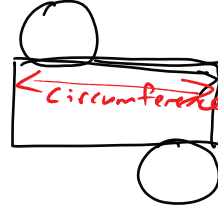


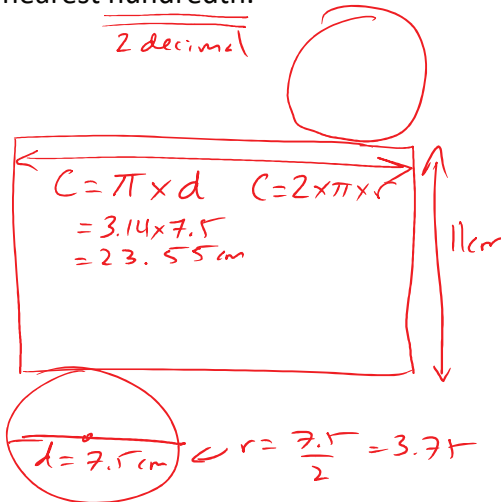
2.4 Surface Area of a Cylinder

Cylinder: • a circular prism
• has a net made up of two circles & rectangle



Example 1: Surface Area of a Cylinder

Calculate the surface area to the nearest hundredth.



$$\square A = 23.55 \times 11$$

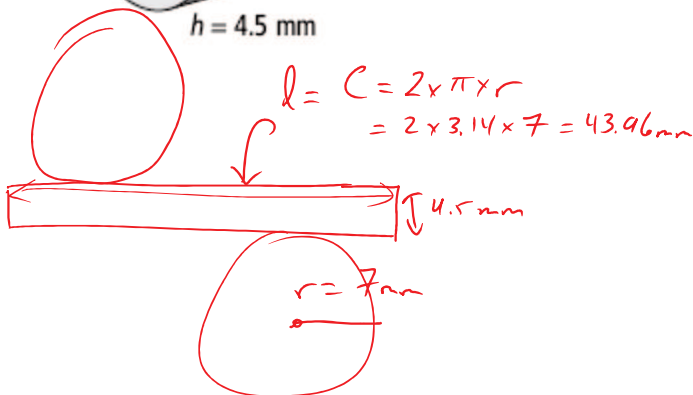
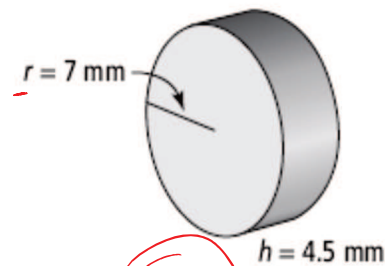
$$= 259.05 \text{ cm}^2$$

$$\begin{aligned} \bigcirc's A &= \pi \times r^2 \\ &= 3.14 \times 3.75^2 \\ &= 44.15625 \\ &\times 2 \\ &= 88.3125 \text{ cm}^2 \end{aligned}$$

$$SA = 347.3625$$

$$\boxed{347.36 \text{ cm}^2}$$

Calculate the surface area to the nearest hundredth.

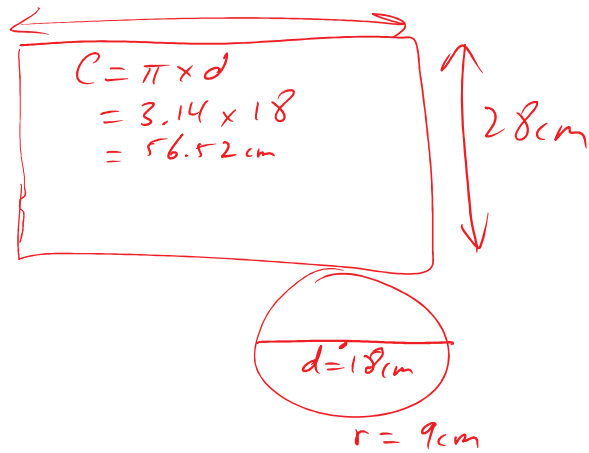


$$\square 43.96 \times 4.5 = 197.82 \text{ mm}^2$$

$$\begin{aligned} \bigcirc's 3.14 \times 7^2 &= 153.86 \\ &\times 2 \\ &= 307.72 \text{ mm}^2 \end{aligned}$$

$$\boxed{SA = 505.54 \text{ mm}^2}$$

Calculate the outside surface area of a cylindrical waste bucket without a lid that measures 28 cm high and 18 cm in diameter. Give your answer to the nearest square centimetre.



$$\begin{aligned}
 & 56.52 \times 28 \\
 &= \underline{1582.56 \text{ cm}^2} \\
 & \quad 1600 \\
 & \quad \quad + \\
 & \quad \quad 250 \\
 & SA = 1836.9 \\
 & \quad \quad \uparrow \\
 & = \underline{\underline{1837 \text{ cm}^2}} \\
 & \quad \quad \approx 1850
 \end{aligned}$$