

Answers Sheet

Surface Area

1. Front = $25 \times 10 = 250\text{cm}^2$

Back = $25 \times 10 = 250\text{cm}^2$

Top = $25 \times 15 = 375\text{cm}^2$

Bottom = $25 \times 15 = 375\text{cm}^2$

Side = $15 \times 10 = 150\text{cm}^2$

Side = $15 \times 10 = 150\text{cm}^2$

Total = $250 + 250 + 375 + 375 + 150 + 150$

11550cm^2

2. Front = $12 \times 4 = 48\text{cm}^2$

Back = $12 \times 4 = 48\text{cm}^2$

Top = $12 \times 8 = 96\text{cm}^2$

Bottom = $12 \times 8 = 96\text{cm}^2$

Side = $8 \times 4 = 32\text{cm}^2$

Side = $8 \times 4 = 32\text{cm}^2$

Total = $48 + 48 + 96 + 96 + 32 + 32$

352cm^2

3. Front = $6 \times 13 / 2 = 48 / 2 = 24\text{cm}^2$

Back = $6 \times 13 / 2 = 48 / 2 = 24\text{cm}^2$

Bottom = $17 \times 7 = 119\text{cm}^2$

Side = $17 \times 14 = 238\text{cm}^2$

Side = $13 \times 17 = 221\text{cm}^2$

Total = $24 + 24 + 119 + 238 + 221$

626cm^2

4. Front = $5 \times 2 / 2 = 10 / 2 = 5\text{m}^2$
 Back = $5 \times 2 / 2 = 10 / 2 = 5\text{m}^2$
 Bottom = $11 \times 2 = 22\text{m}^2$
 Side = $11 \times 9 = 99\text{m}^2$
 Side = $11 \times 5 = 55\text{m}^2$
 Total = $5 + 5 + 22 + 99 + 55$
 186m^2

5. Front = $1 / 2 (7 + 9) \times 4 = 64 / 2 = 34\text{cm}^2$
 Back = $1 / 2 (7 + 9) \times 4 = 64 / 2 = 34\text{cm}^2$
 Top = $7 \times 7 = 49\text{cm}^2$
 Bottom = $9 \times 7 = 63\text{cm}^2$
 Side = $4 \times 7 = 28\text{cm}^2$
 Side = $4 \times 7 = 28\text{cm}^2$
 Total = $34 + 34 + 49 + 63 + 28 + 28$
 236cm^2

6. Front = $1 / 2 (10 + 11) \times 4 = 84 / 2 = 42\text{cm}^2$
 Back = $1 / 2 (10 + 11) \times 4 = 84 / 2 = 42\text{cm}^2$
 Top = $10 \times 8 = 80\text{cm}^2$
 Bottom = $11 \times 8 = 88\text{cm}^2$
 Side = $6 \times 8 = 48\text{cm}^2$
 Side = $6 \times 8 = 48\text{cm}^2$
 Total = $42 + 42 + 80 + 88 + 48 + 48$
 348cm^2

7. Front = $1 / 2 (10 + 11) \times 4 = 84 / 2 = 42\text{cm}^2$
 Back = $1 / 2 (10 + 11) \times 4 = 84 / 2 = 42\text{cm}^2$
 Top = $10 \times 8 = 80\text{cm}^2$
 Bottom = $11 \times 8 = 88\text{cm}^2$
 Side = $6 \times 8 = 48\text{cm}^2$
 Side = $6 \times 8 = 48\text{cm}^2$
 Total = $42 + 42 + 80 + 88 + 48 + 48$
 348cm^2

$$\begin{aligned}
 8. \text{ Surface Area} &= 4\pi r^2 \\
 &= 4 (3.14) 8^2 \\
 &= 12.56 \times 64 \\
 &= \mathbf{803.8\text{cm}^2}
 \end{aligned}$$

$$\begin{aligned}
 9. \quad 4\pi r^2 &= 1600\pi \\
 4r^2 &= 1600 \\
 r^2 &= 1600 / 4 \\
 r^2 &= 400 \\
 r &= \sqrt{400} \\
 \mathbf{r} &= \mathbf{200\text{cm}^2}
 \end{aligned}$$

$$\begin{aligned}
 10. \text{ Surface Area of the cone is} \\
 \pi r^2 &= \pi r l \\
 \pi \times 4^2 &= \pi \times 4 \times 5 \\
 16\pi &= 20\pi \\
 &= \mathbf{12.5\text{cm}^2}
 \end{aligned}$$
