

Box net - answers

Worked answers / Keep separate from the student sheet.

1. A box is 20 x 12 x 23 mm. Find its six-face surface area and volume (excluding glue tabs).

Area = $2(ab+ac+bc) = 1952 \text{ mm}^2$; volume = $abc = 5520 \text{ mm}^3$.

2. A box is 25 x 14 x 26 mm. Find its six-face surface area and volume (excluding glue tabs).

Area = $2(ab+ac+bc) = 2728 \text{ mm}^2$; volume = $abc = 9100 \text{ mm}^3$.

3. A box is 30 x 16 x 29 mm. Find its six-face surface area and volume (excluding glue tabs).

Area = $2(ab+ac+bc) = 3628 \text{ mm}^2$; volume = $abc = 13920 \text{ mm}^3$.

4. A box is 35 x 18 x 32 mm. Find its six-face surface area and volume (excluding glue tabs).

Area = $2(ab+ac+bc) = 4652 \text{ mm}^2$; volume = $abc = 20160 \text{ mm}^3$.

5. A box is 40 x 20 x 35 mm. Find its six-face surface area and volume (excluding glue tabs).

Area = $2(ab+ac+bc) = 5800 \text{ mm}^2$; volume = $abc = 28000 \text{ mm}^3$.

6. A box is 45 x 22 x 38 mm. Find its six-face surface area and volume (excluding glue tabs).

Area = $2(ab+ac+bc) = 7072 \text{ mm}^2$; volume = $abc = 37620 \text{ mm}^3$.