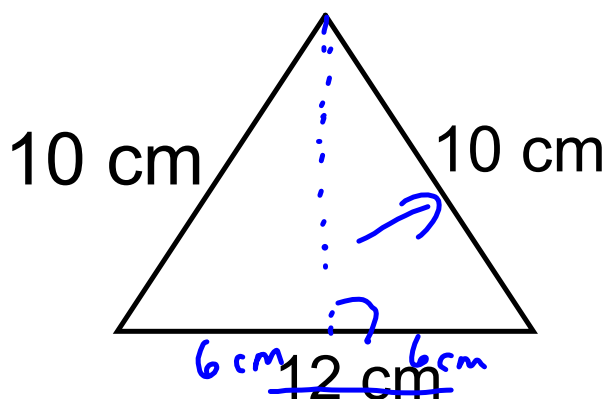


What is the height of the triangle?



$$c^2 = a^2 + b^2$$

$$10^2 = 6^2 + b^2$$

$$100 = 36 + b^2$$

$$100 = 36 + b^2$$

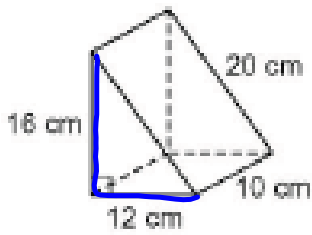
$$\sqrt{b^2} = \sqrt{64}$$

$$b = 8$$

What is the area?

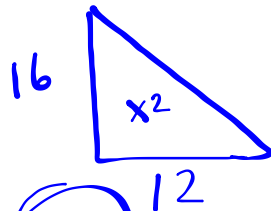
$$A = \frac{bh}{2}$$

$$= \frac{12 \times 8}{2} = 48 \text{ cm}^2$$

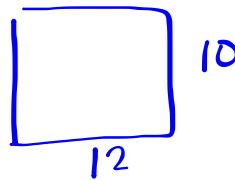


Draw the faces

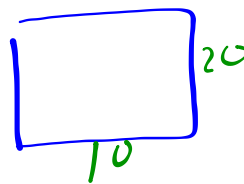
Find the surface area



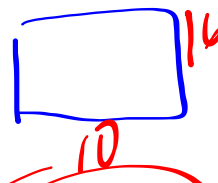
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{12 \times 16}{2} \\
 &= \frac{192}{2} \\
 &= 96 \\
 &\times \frac{2}{2} \\
 &= 192
 \end{aligned}$$



$$\begin{aligned}
 A &= bh \\
 &= 10 \times 12 \\
 &= 120
 \end{aligned}$$

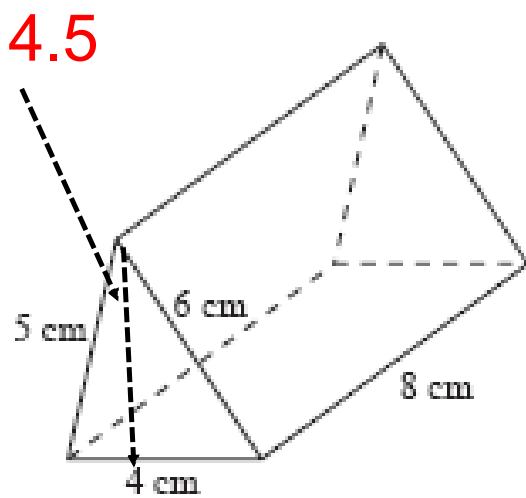


$$\begin{aligned}
 A &= bh \\
 &= 10 \times 20 \\
 &= 200
 \end{aligned}$$

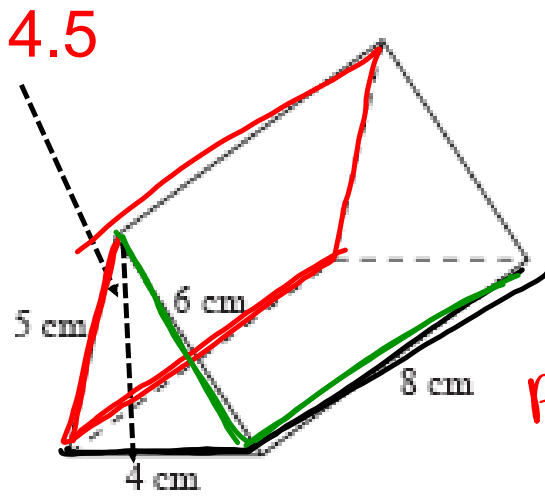


$$\begin{aligned}
 A &= bh \\
 &= 10 \times 16 \\
 &= 160 \\
 \hline
 &= 480
 \end{aligned}$$

$$480 + 192 = 672 \text{ cm}^2$$



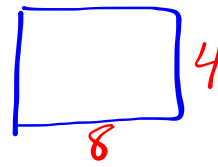
- Draw the faces
- Find the surface area



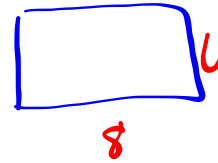
• Find the surface area



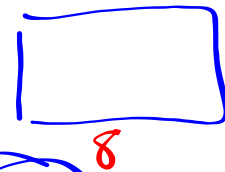
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{4 \times 4.5}{2} \\
 &= \frac{18}{2} \\
 &= \frac{9}{1} \\
 &= 9
 \end{aligned}$$



$$\begin{aligned}
 A &= bh \\
 &= 8 \times 4 \\
 &= 32
 \end{aligned}$$



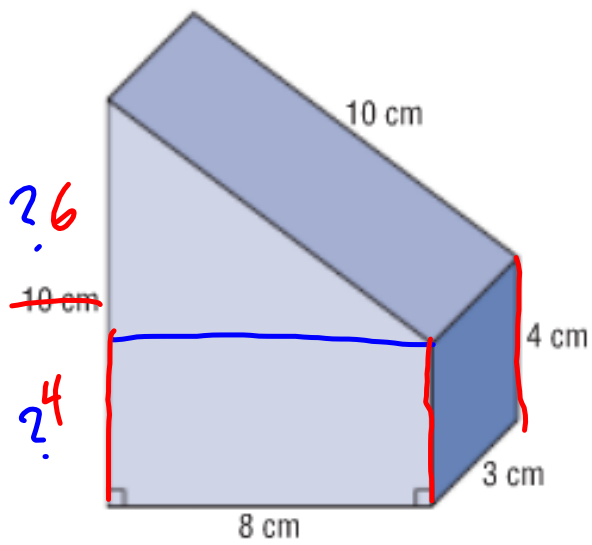
$$\begin{aligned}
 A &= bh \\
 &= 8 \times 6 \\
 &= 48
 \end{aligned}$$



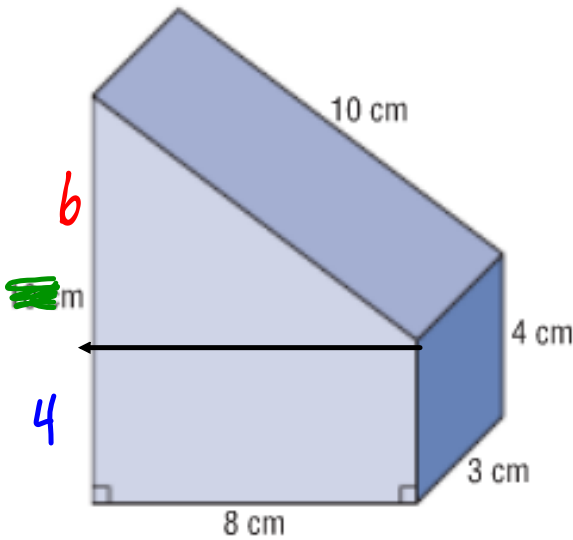
$$\begin{aligned}
 A &= bh \\
 &= 8 \times 5 \\
 &= 40
 \end{aligned}$$

138 cm²

Determine the surface area of this object.



Determine the surface area of this object.



Rectangular Prism

F/B T/B sides

$$4 \begin{array}{|c|} \hline \times 2 \\ \hline \end{array} \begin{array}{l} 8 \\ A = bh \\ = 8 \times 4 \\ = 32 \\ \times 2 \\ \hline 64 \end{array}$$

$$3 \begin{array}{|c|} \hline \times 2 \\ \hline \end{array} \begin{array}{l} 8 \\ A = bh \\ = 8 \times 3 \\ = 24 \\ \times 2 \\ \hline 48 \end{array} +$$

$$4 \begin{array}{|c|} \hline \times 2 \\ \hline \end{array} \begin{array}{l} 3 \\ A = bh \\ = 3 \times 4 \\ = 12 \\ \times 2 \\ \hline 24 \end{array} +$$

136

$$6 \begin{array}{|c|} \hline \times 2 \\ \hline \end{array} \begin{array}{l} 8 \\ A = \frac{bh}{2} \\ = \frac{6 \times 6}{2} \\ = \frac{36}{2} \\ = 18 \end{array}$$

$$\begin{array}{|c|} \hline \times 2 \\ \hline \end{array} \begin{array}{l} 3 \\ A = bh \\ = 3 \times 10 \\ = 30 \end{array}$$

120

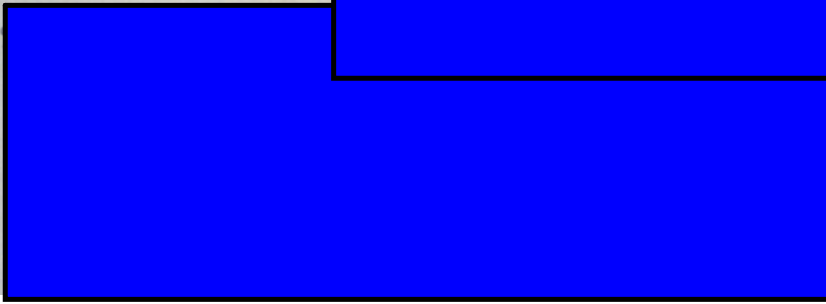
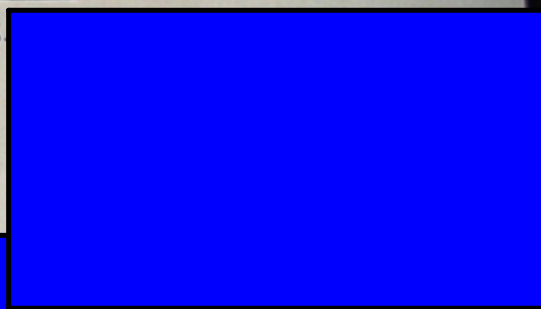
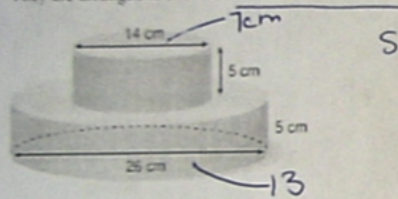
$$6 \begin{array}{|c|} \hline \times 2 \\ \hline \end{array} \begin{array}{l} 3 \\ A = bh \\ = 6 \times 3 \\ = 18 \end{array}$$

$$\begin{array}{|c|} \hline \times 2 \\ \hline \end{array} \begin{array}{l} 3 \\ A = bh \\ = 8 \times 3 \\ = 24 \end{array}$$

$$120 + 136 = 256$$

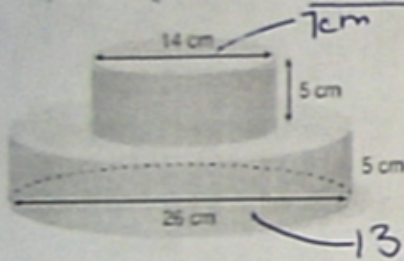
overlap $-\frac{48}{208 \text{ cm}^2}$

Two round cakes have diameters of 14 cm and 26 cm, and are 5 cm tall. They are arranged as shown. The cakes are covered in frosting. What is the area of frosting?



$$SA = 2\pi r^2 + 2\pi r h$$

Two round cakes have diameters of 14 cm and 26 cm, and are 5 cm tall. They are arranged as shown. The cakes are covered in frosting. What is the area of frosting?



$$SA = 2\pi r^2 + 2\pi rh$$

$$= 2(3.14)(7)^2 + 2(3.14)(7)(5)$$

lost \Rightarrow $307.72 + 219.8$

$$= 527.52$$

$$SA = 2\pi r^2 + 2\pi rh$$

$$= 2(3.14)(13)^2 + 2(3.14)(13)(5)$$

$$= 1061.32 + 408.2$$

$$= 1469.5$$

divide by 2

$$1469.5 + 527.52 = 1997.02$$

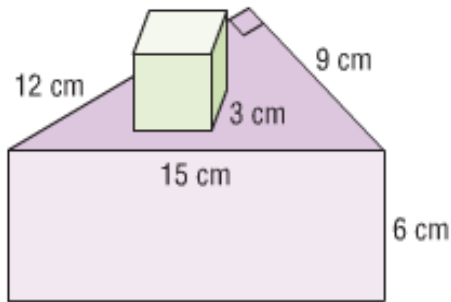
1159

$$\begin{array}{r} 1997.02 \\ - 307.72 \\ - 530.66 \\ \hline 1158.64 \text{ cm}^2 \end{array}$$

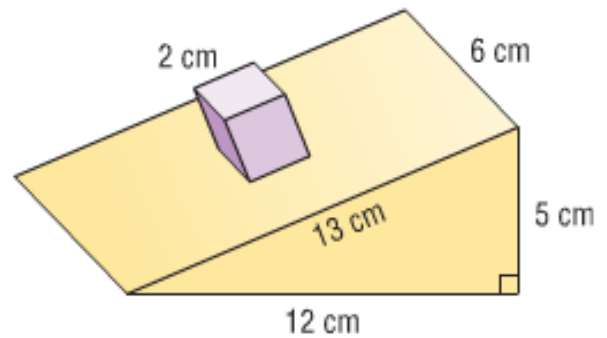
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#3 360cm^2 d, e 256cm^2
#4 a 58.1cm^2

d) cube on a triangular prism



e) cube on a triangular prism



Attachments

page 40 answers.notebook