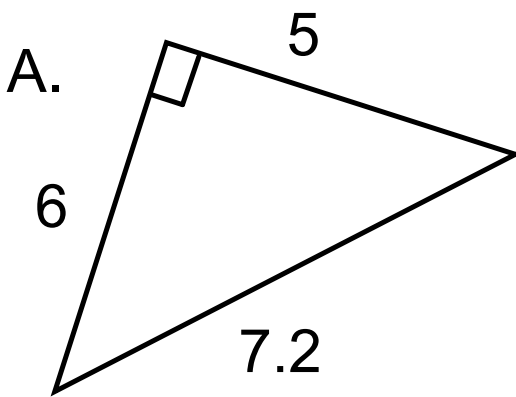


What is the area of the triangle?



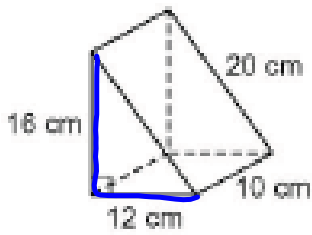
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{6 \times 5}{2} \\
 &= \frac{30}{2} \quad (15)
 \end{aligned}$$

B)

10 cm, 10 cm, 12 cm, 8

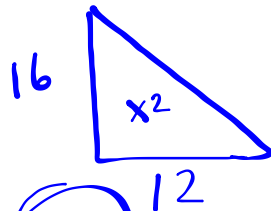
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{12 \times 8}{2} \\
 &= 48 \text{ cm}^2
 \end{aligned}$$

$c^2 = a^2 + b^2$
 $10^2 = 6^2 + b^2$
 $100 = 36 + b^2$
 $\sqrt{b^2} = \sqrt{64}$
 $b = 8$

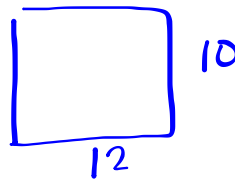


Draw the faces

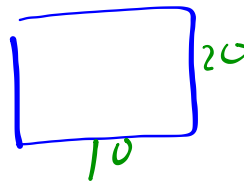
Find the surface area



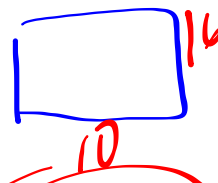
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{12 \times 16}{2} \\
 &= \frac{192}{2} \\
 &= 96 \\
 &\times \frac{2}{2} \\
 &= 192
 \end{aligned}$$



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

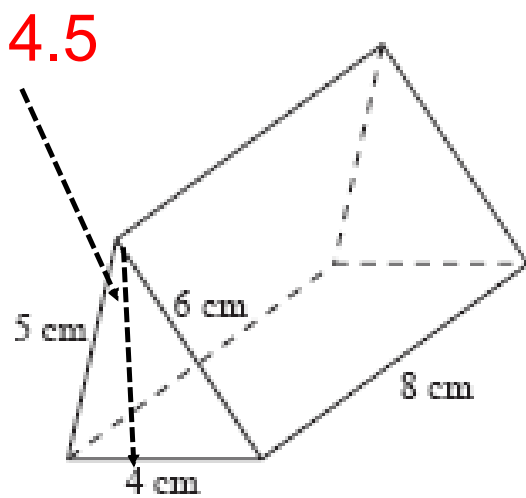


$$\begin{aligned}
 A &= bh \\
 &= 10 \times 20 \\
 &= 200
 \end{aligned}$$

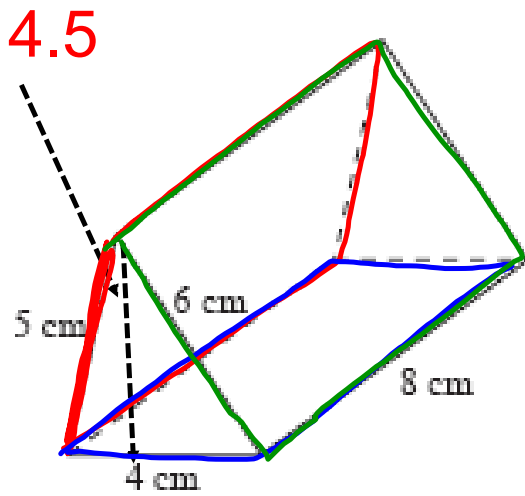


$$\begin{aligned}
 A &= bh \\
 &= 10 \times 16 \\
 &= 160 \\
 \hline
 &= 480
 \end{aligned}$$

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



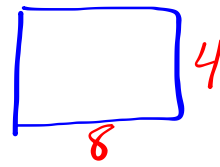
- Draw the faces
- Find the surface area



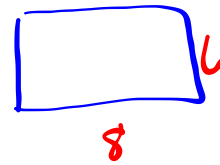
• Find the surface area



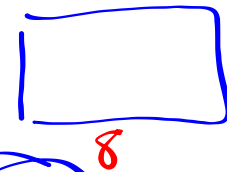
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{4 \times 4.5}{2} \\
 &= \frac{18}{2} \\
 &= \frac{9}{1} \\
 &= 9
 \end{aligned}$$



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



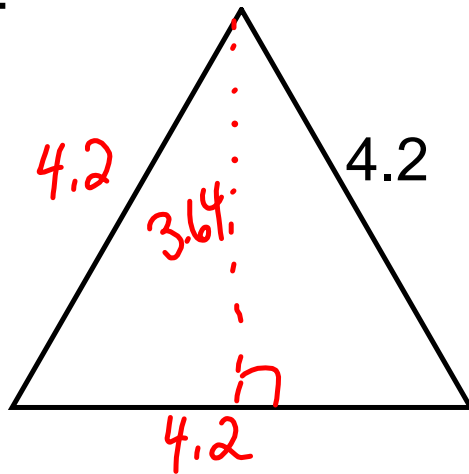
$$\begin{aligned}
 A &= bh \\
 &= 8 \times 6 \\
 &= 48
 \end{aligned}$$



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

138 cm²

What do you know about an equilateral triangle?

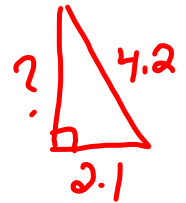


Find the area...

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

$$= \frac{4.2 \times 3.64}{2}$$

$$= 7.64$$



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

$$4.2^2 = 2.1^2 + b^2$$

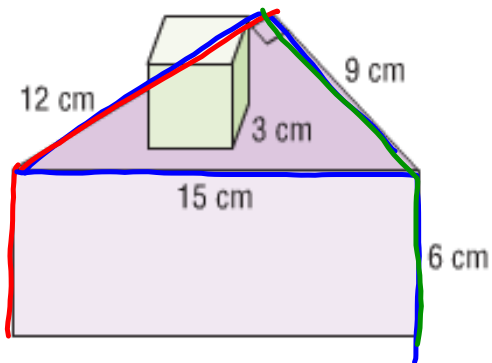
$$17.64 = 4.41 + b^2$$

$$\sqrt{b^2} = \sqrt{13.23}$$

$$b = 3.64$$

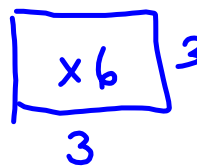
#3.

d) cube on a triangular prism



Page 40

SA Cube



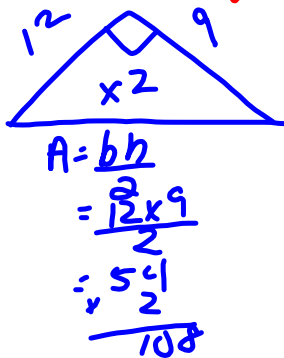
$$A = bh$$

$$= 3 \times 3$$

$$= 9$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$$

Surface Area Triangular Prism

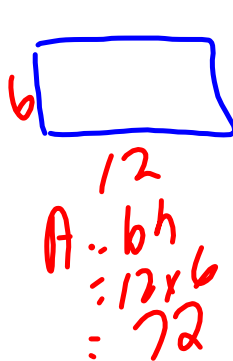


$$A = \frac{bh}{2}$$

$$= \frac{12 \times 9}{2}$$

$$= \frac{108}{2}$$

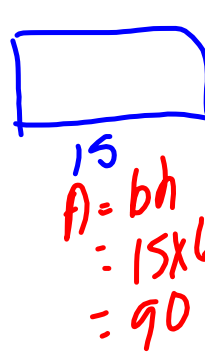
$$= 54$$



$$A = bh$$

$$= 12 \times 6$$

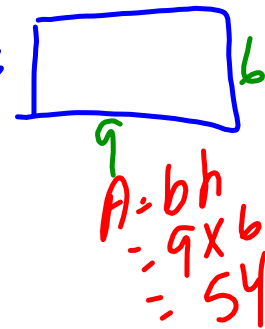
$$= 72$$



$$A = bh$$

$$= 15 \times 6$$

$$= 90$$



$$A = bh$$

$$= 9 \times 6$$

$$= 54$$

$$108 + 72 + 90 + 54 + 54 = 378$$

$$\begin{array}{r} 378 \\ - 18 \\ \hline 360 \text{ cm}^2 \end{array}$$

Page 40

#3

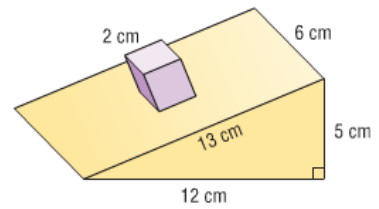
e

#5

a, b

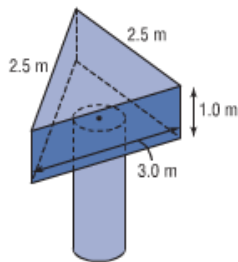
256 cm^2

e) cube on a triangular prism



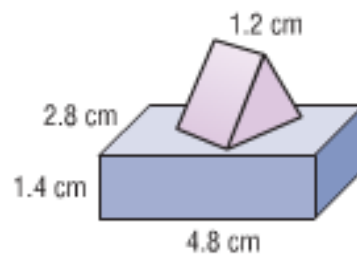
5. Determine the surface area of each composite object.

a) The cylinder is 2.5 m long with radius 0.5 m.



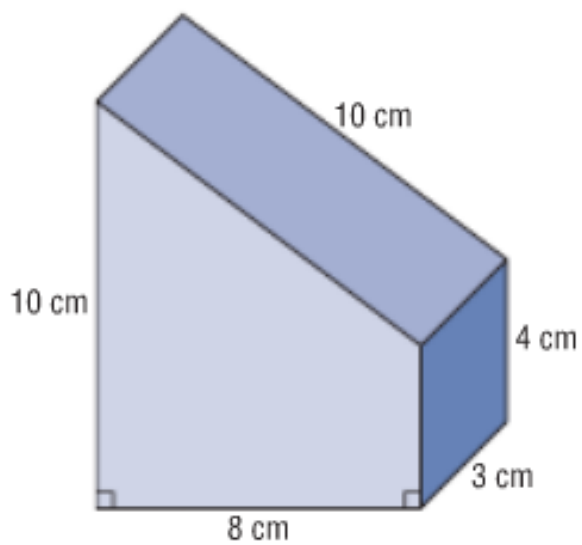
21.9 m^2

b) The base of the triangular prism is an equilateral triangle with side length 2.8 cm.

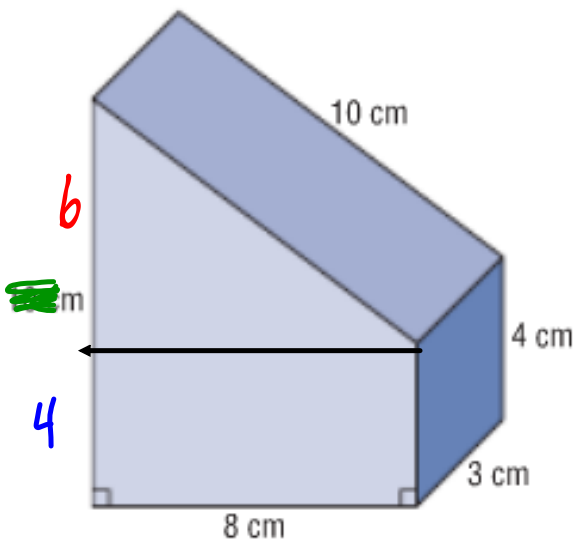


58.3 m^2

Determine the surface area of this object.



Determine the surface area of this object.



Rectangular Prism

F/B T/B sides

$$4 \begin{array}{|c|} \hline \times 2 \\ \hline 8 \\ \hline \end{array}$$

$$A = bh$$

$$= 8 \times 4$$

$$= 32$$

$$\frac{\times 2}{64}$$

$$3 \begin{array}{|c|} \hline \times 2 \\ \hline 6 \\ \hline \end{array}$$

$$A = bh$$

$$= 8 \times 3$$

$$= 24$$

$$\frac{\times 2}{48}$$

$$4 \begin{array}{|c|} \hline \times 2 \\ \hline 8 \\ \hline \end{array}$$

$$A = bh$$

$$= 3 \times 4$$

$$= 12$$

$$\frac{\times 2}{24}$$

136

$$6 \begin{array}{|c|} \hline \times 2 \\ \hline 12 \\ \hline \end{array}$$

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

$$= \frac{8 \times 6}{2}$$

$$= \frac{48}{2}$$

$$= 24$$

$$10 \begin{array}{|c|} \hline \times 3 \\ \hline 30 \\ \hline \end{array}$$

$$A = bh$$

$$= 3 \times 10$$

$$= 30$$

$$6 \begin{array}{|c|} \hline \times 3 \\ \hline 18 \\ \hline \end{array}$$

$$A = bh$$

$$= 6 \times 3$$

$$= 18$$

$$8 \begin{array}{|c|} \hline \times 3 \\ \hline 24 \\ \hline \end{array}$$

$$A = bh$$

$$= 8 \times 3$$

$$= 24$$

120

$$120 + 136 = 256$$

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

Attachments

page 40 answers.notebook