

Warm-Up

November 13

Is the number a perfect square?

Find the square root? [Using fractions]

Give a number whose square root is? [Use fractions]

A. $\frac{3}{6} \times \frac{3}{6} = \frac{9}{36}$ $\left[\frac{3}{6}\right]^2$

B. Which of the following are perfect squares?[show your work]

$\frac{8}{32} = \frac{1}{4}$ $\leftarrow 1 \times 1$ $\leftarrow 2 \times 2$ *yes*

C. Is the following a perfect square? 1.69

Answer using fractions!

1.69 $\frac{169}{100} \leftarrow 13 \times 13$ $\leftarrow 10 \times 10$ *yes*

D. Find the square root of 0.09 **using fraction**

$\sqrt{\frac{9}{100}} = \frac{3}{10}$

E. What is the number that has a square root of 4?

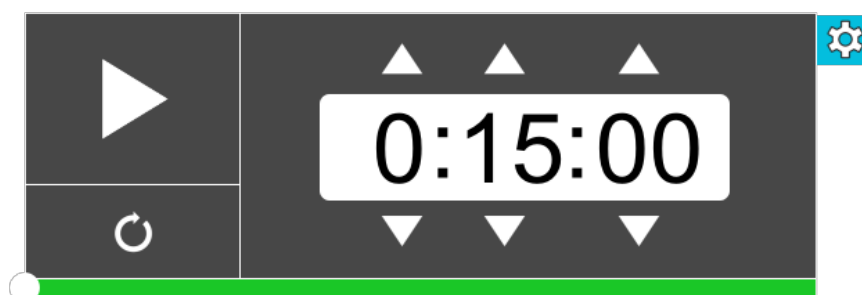
$\sqrt{?} = 4$
 $? = 16$

F. What is a number that has a square root of 0.3? [use fractions]

$\sqrt{?} = \frac{3}{10} \times \frac{3}{10}$
 $\frac{9}{100}$

G. $\sqrt{\frac{32}{?}} = \frac{4}{5}$

$\sqrt{\frac{16}{25}}$



If not finished when 15 minutes are up you need to come at 12:08 to finish.

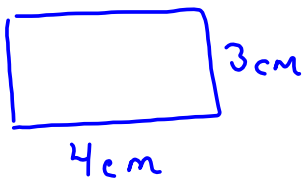
Section 1.3

Surface Area

Rectangular Prisms

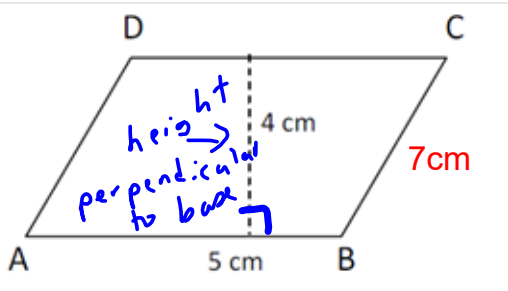
Area of a rectangle $A=bh$

$A=lw$



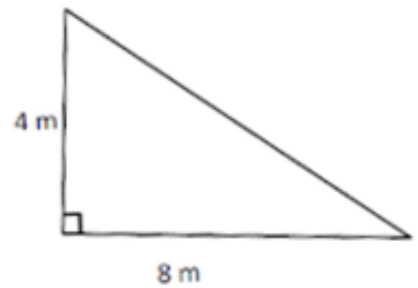
$A=bh$
 $=4 \times 3$
 $=12 \text{ cm}^2$

Area of a parallelogram



$A=bh$
 $=5 \times 4$
 $=20 \text{ cm}^2$

area of a triangle



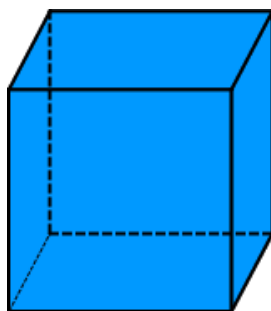
$A = \frac{bh}{2}$
 $= \frac{8 \times 4}{2}$
 $= \frac{32}{2}$
 $= 16 \text{ m}^2$

Height is perpendicular to base!
 [right angle]

*****Review*****

A face is one flat surface of an object

A cube has 6 faces

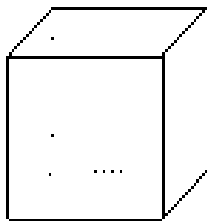


To Find Surface Area...

Step 1 Draw the faces

Step 2 Find the area of each face

Step 3 Add the area of each face



9 cm



9cm

$$A = bh \text{ or } A = S^2$$

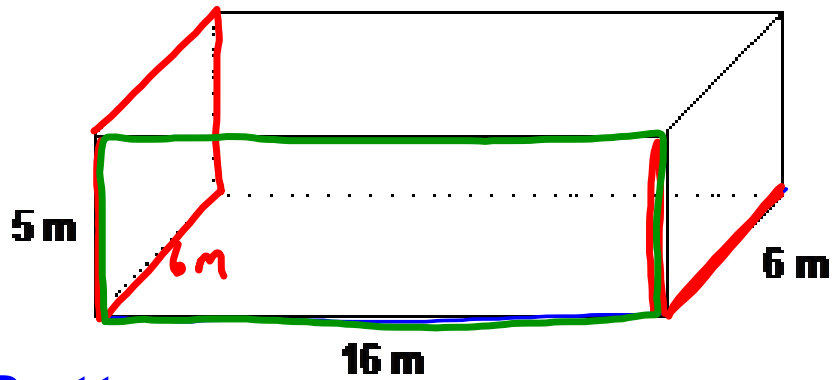
$$= 9 \times 9$$

$$= 81$$

x 6 faces

$$\text{Total Surface Area} = \frac{486 \text{ cm}^2}{}$$

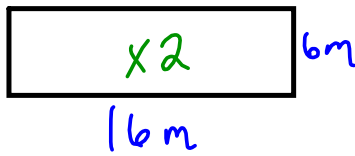
[TSA]



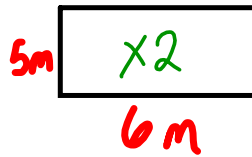
Top / Bottom

Sides

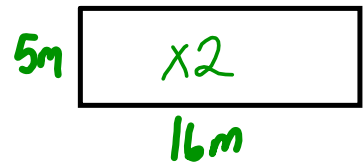
Front / Back



$$\begin{aligned}
 A &= bh \\
 &= 16 \times 6 \\
 &= 96 \\
 &\times 2 \\
 \hline
 &192 \text{ m}^2
 \end{aligned}$$



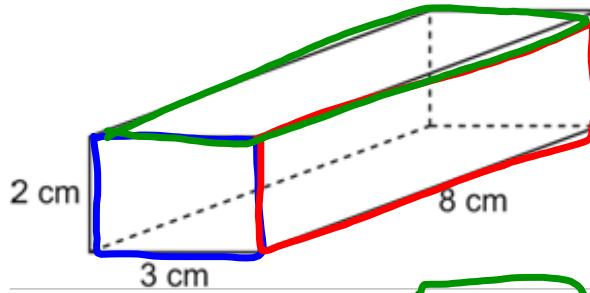
$$\begin{aligned}
 A &= bh \\
 A &= 6 \times 5 \\
 &= 30 \\
 &\times 2 \\
 \hline
 &60 \text{ m}^2
 \end{aligned}$$



$$\begin{aligned}
 A &= bh \\
 &= 16 \times 5 \\
 &= 80 \\
 &\times 2 \\
 \hline
 &160 \text{ m}^2
 \end{aligned}$$

+ +

$$\text{TSA} = 412 \text{ m}^2$$



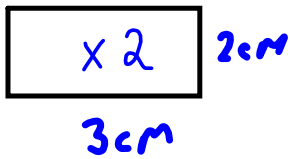
Front / Back



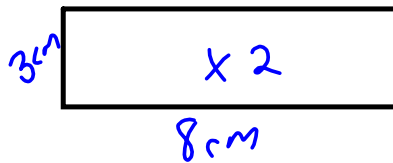
Top / Bottom



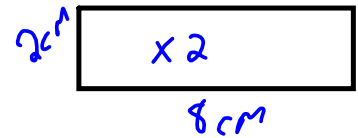
Sides



$$\begin{aligned}
 A &= bh \\
 &= 3 \times 2 \\
 &= 6 \\
 &\times 2 \\
 \hline
 &12 \text{ cm}^2
 \end{aligned}$$



$$\begin{aligned}
 A &= bh \\
 &= 8 \times 3 \\
 &= 24 \\
 &\times 2 \\
 \hline
 &48 \text{ cm}^2
 \end{aligned}$$



$$\begin{aligned}
 A &= bh \\
 &= 8 \times 2 \\
 &= 16 \\
 &\times 2 \\
 \hline
 &32 \text{ cm}^2
 \end{aligned}$$

$$TSA = 92 \text{ cm}^2$$

Surface Area of Composite Objects

A composite object is the result of combining **one or more objects to make a **new object****

