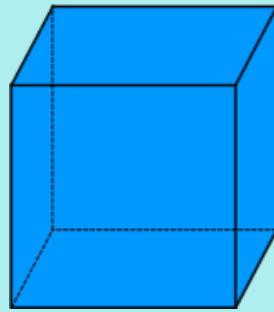


To calculate
SURFACE AREA
you must first
recognize every
side or face.



Draw the faces
of this
3D-figure



To calculate
SURFACE AREA
you must first
recognize every
side or face.



The faces of this 3D-figure are:

front

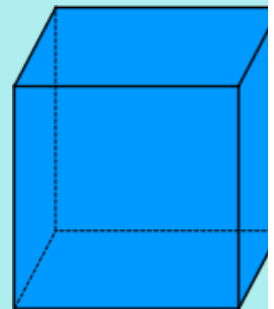
back

side

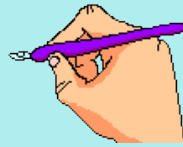
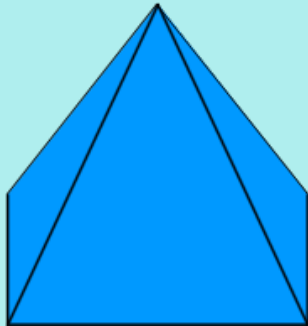
side

top

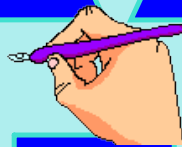
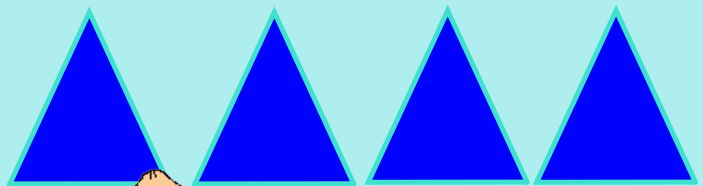
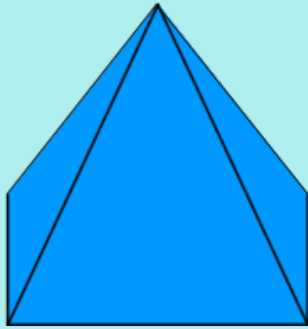
bottom



*Draw the faces
of this
3D-figure*



The faces of this 3D-figure are:

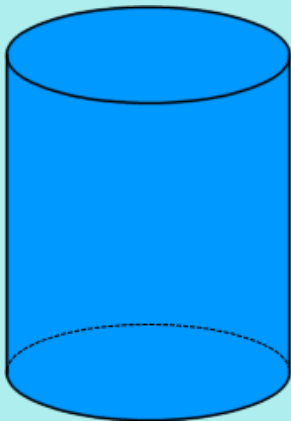


4 sides

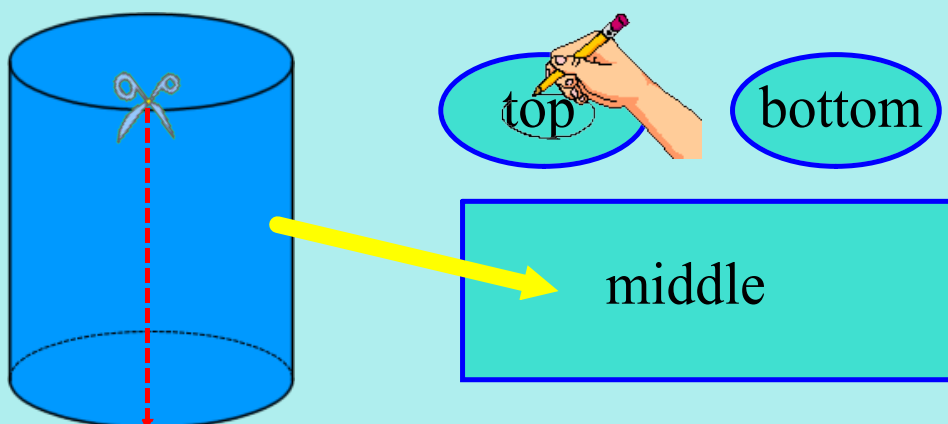


base (bottom)

*Draw the faces
of this
3D-figure*



The faces of this 3D-figure are:



To calculate ...

Surface area



1. Identify all sides or faces.

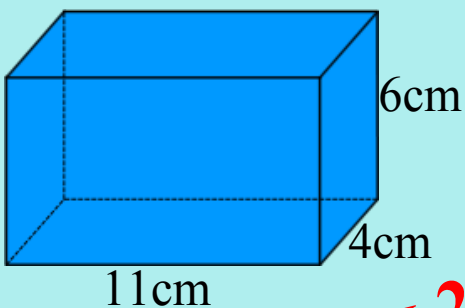


2. Calculate the area of each face.



3. Add all areas together.

Calculate the surface area of the following 3D-Shape.



Top & Bottom (will always be the same)
Front & Back (will always be the same)
Side & Side (will always be the same)

Top & Bottom $\times 2$

$$\begin{aligned} A &= 2(L \times W) \\ A &= 2(11 \times 4) \\ A &= 2(44) \\ A &= 88 \text{ cm}^2 \end{aligned}$$

Front & Back $\times 2$

$$\begin{aligned} A &= 2(L \times W) \\ A &= 2(11 \times 6) \\ A &= 2(66) \\ A &= 132 \text{ cm}^2 \end{aligned}$$

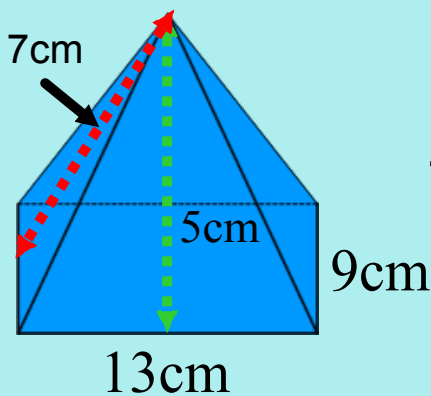
Sides $\times 2$

$$\begin{aligned} A &= 2(L \times W) \\ A &= 2(4 \times 6) \\ A &= 2(24) \\ A &= 48 \text{ cm}^2 \end{aligned}$$

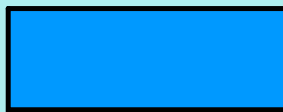
Total Surface Area

$$\begin{array}{r} 88 \text{ cm}^2 \\ 132 \text{ cm}^2 \\ 48 \text{ cm}^2 \\ \hline 268 \text{ cm}^2 \end{array}$$

Calculate the surface area of the following 3D-Shape.



Bottom

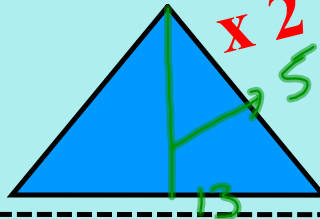


$$A = L \times W$$

$$A = 13 \times 9$$

$$A = 117 \text{ cm}^2$$

Front & Back



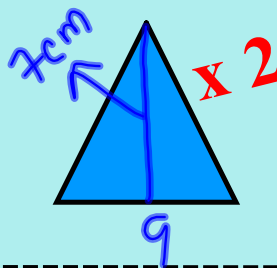
$$A = 2 \left(\frac{b \times h}{2} \right)$$

$$A = 2 \left(\frac{13 \times 5}{2} \right)$$

$$A = 2(130/2)$$

$$A = 65 \text{ cm}^2$$

Sides



$$A = 2 \left(\frac{b \times h}{2} \right)$$

$$A = 2 \left(\frac{9 \times 7}{2} \right)$$

$$A = 2(126/2)$$

$$A = 63 \text{ cm}^2$$

$$\begin{aligned} \text{Total Surface Area} &= 117 + 65 + 63 \\ &= 245 \text{ cm}^2 \end{aligned}$$

Calculate the surface area of the following 3D-Shape.

This is special!



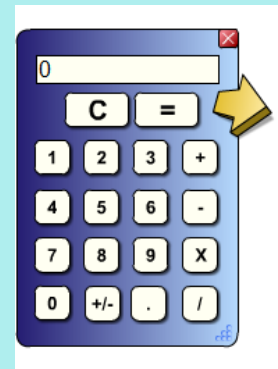
$$SA = 2\pi r^2 + 2\pi rh$$

$$SA = 2(3.14)(2)^2 + 2(3.14)(2)(21)$$

$$SA = 2(3.14)(4) + 263.76$$

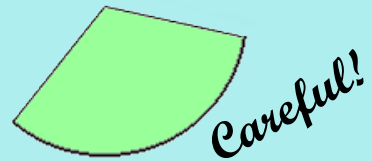
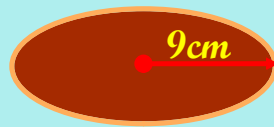
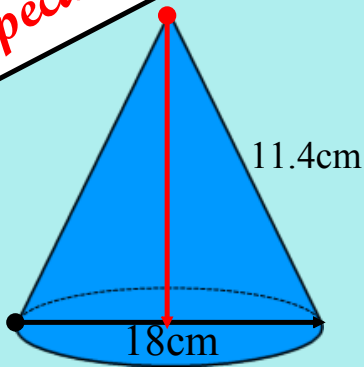
$$SA = 25.12 + 263.76$$

$$SA = 288.88\text{cm}^2$$



Calculate the surface area of the following 3D-Shape.

This is special!



$$A = \pi r s$$

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

$$\begin{aligned} SA &= (3.14)(9)^2 + (3.14)(9)(11.4) \\ &= (3.14)(81) + 322.164 \\ &= 254.34 + 322.164 \\ &= 576.504 \text{ cm}^2 \end{aligned}$$

Attachments

Methods_of_Determining_Probability.asf

The_Many_Sided_World_of_Geometry__Program_6__Figuring_Out_Area.asf