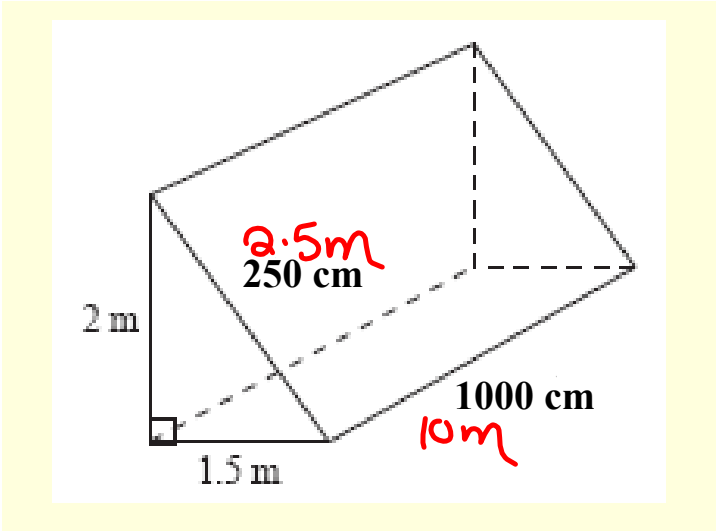
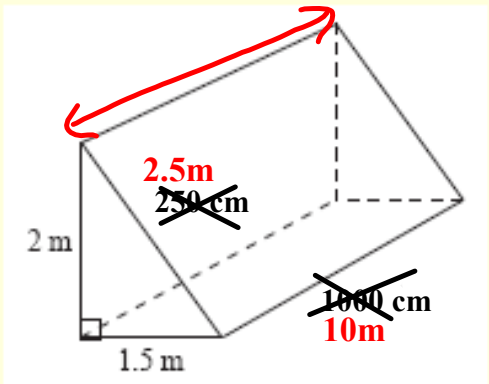
Calculate the surface area in meters.



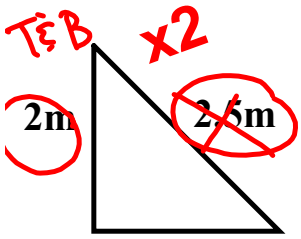
Calculate the surface area in meters.



number x $\frac{\text{want}}{\text{have}}$

number x $\frac{\text{m}}{\text{cm}}$

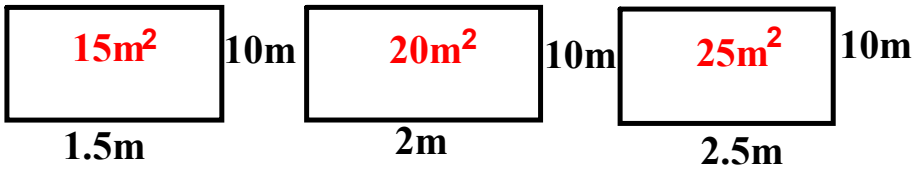
number x $\frac{1}{100}$



$\frac{b \times h}{2} \times 2$

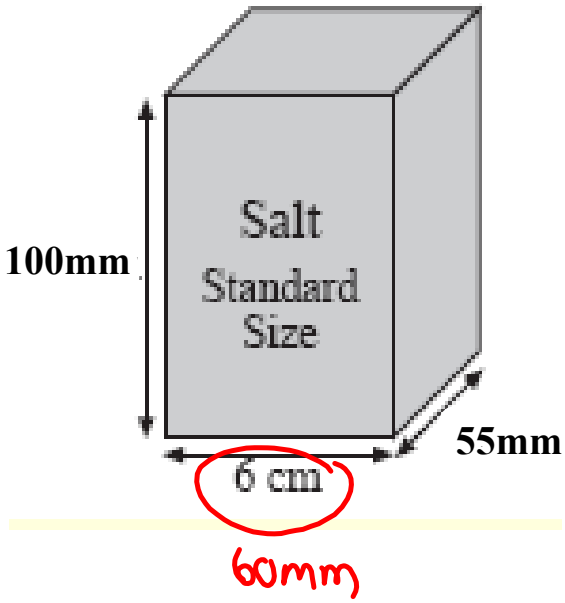
$\frac{1.5 \times 2}{2} \times 2$

$= 3.0m^2$

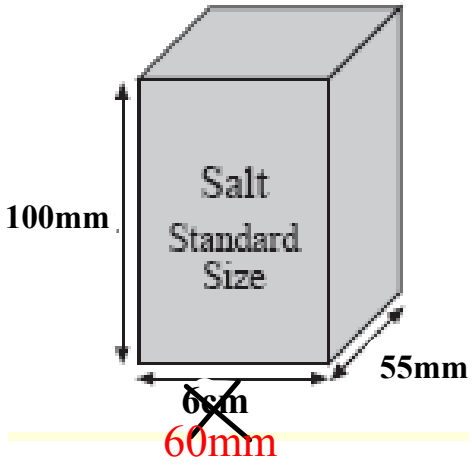


$3 + 15 + 20 + 25 = 63m^2$

Calculate the surface area in millimeters.



Calculate the surface area in millimeters.



number x $\frac{\text{want}}{\text{have}}$

number x $\frac{\text{mm}}{\text{cm}}$

number x $\frac{10}{1}$

T & B x2

3300mm^2

55mm

60mm

F&B x2

6000mm^2

100mm

60mm

Sides x2

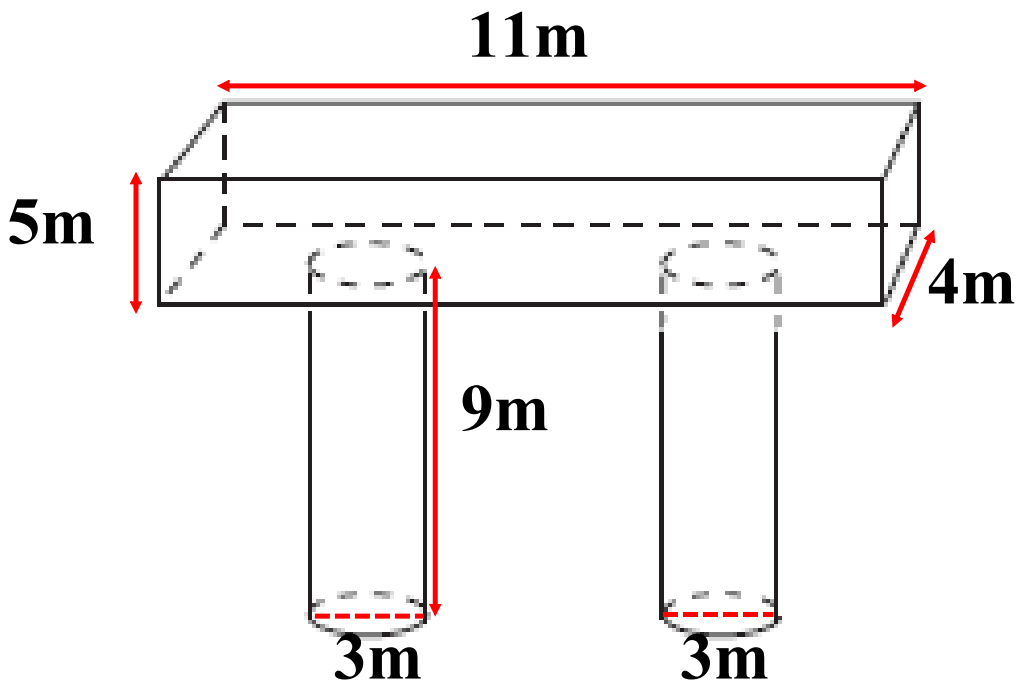
5500mm^2

100mm

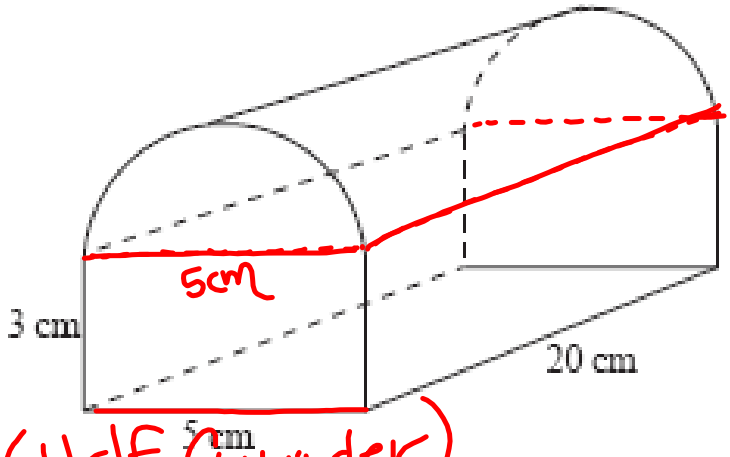
55mm

$6600mm^2 + 12000mm^2 + 11000mm^2$

$= 29600mm^2$



Don't forget to multiply by two when finding the overlap!!!



(Half Cylinder)

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

$SA = \frac{2(3.14)(2.5)^2}{2} + \frac{2(3.14)(2.5)(20)}{2}$

$SA = \frac{2(3.14)(6.25)}{2} + \frac{314}{2}$

$SA = \frac{39.25 + 314}{2}$

$SA = \frac{353.25}{2}$

$SA = 176.63 cm^2$

Rec Prism

B $(5 \times 20) = 100$

F & B $(5 \times 3) \times 2 = 30$

Sides $(20 \times 3) \times 2 = 120$

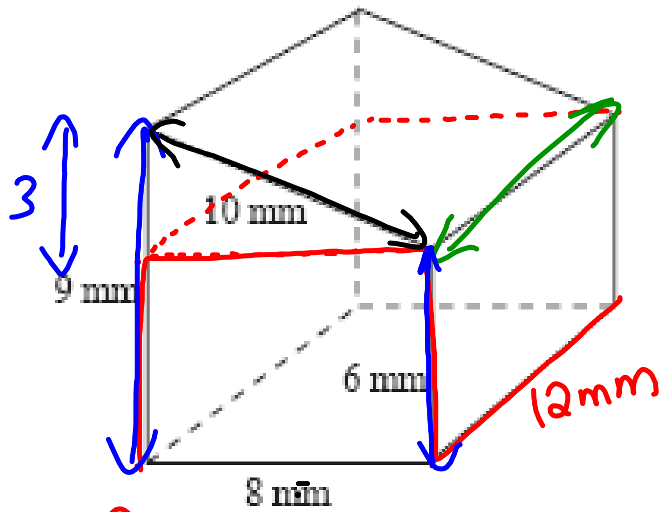
$= 250$

Total

250

176.63

$= 426.63 cm^2$



Rec Prism

T&B $(8 \times 12) \times 2 = 192$

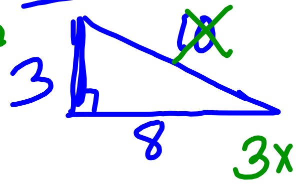
F&B $(6 \times 8) \times 2 = 96$

Sides $(6 \times 12) \times 2 = 144$

$= 432 mm^2$

Tri Prism

T&B



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

$3 \times 8 = 24$

12 | 120 (10)

12 | 36 (3)

12 | 96 (8)

24
120
36
96
= 276

Overlap

$L \times W \times 2$

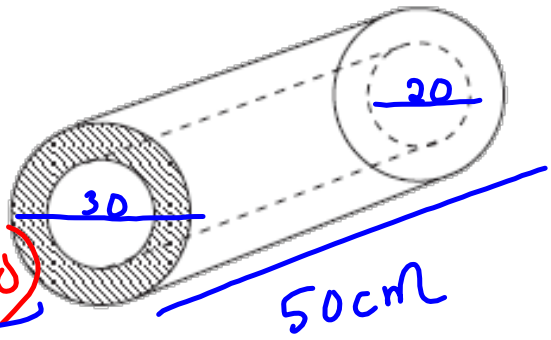
$8 \times 12 \times 2$

$96 \times 2 = 192$

Total

276
+ 432
− 192
= $516 mm^2$

The diagram shows the cross-section of a pipe of length 50 cm.
The inner diameter of the pipe is 20 cm and the outer diameter is 30 cm.



Larger Cylinder

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

$2(3.14)(15)^2 + 2(3.14)(15)(50)$

$2(3.14)(225) + 4710$

$1413 + 4710$

$= 6123 cm^2$

Smaller Cyl.

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

$= 2(3.14)(10)^2 + 2(3.14)(10)(50)$

$= 2(3.14)(100) + 3140$

$= 628 + 3140$

$= 3768 cm^2$

Overlap

$\pi r^2 \times 4$

$3.14(10)^2 \times 4$

$3.14(100) \times 4$

$= 1256 cm^2$

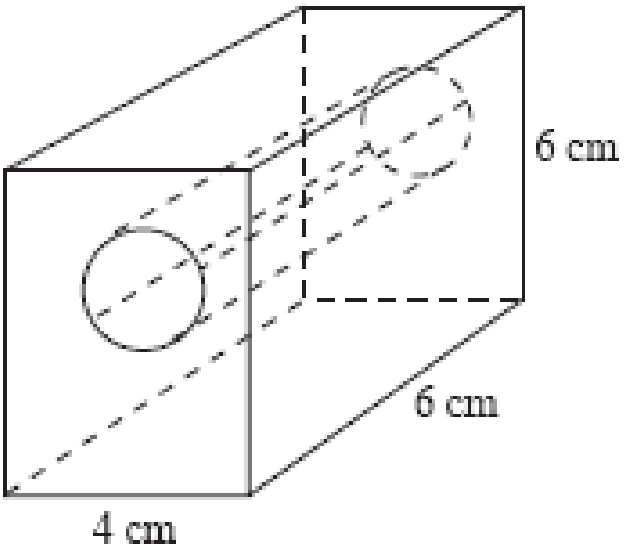
Total

$+6123$

3768

-1256

$8635 cm^2$


6 cm
6 cm
4 cm