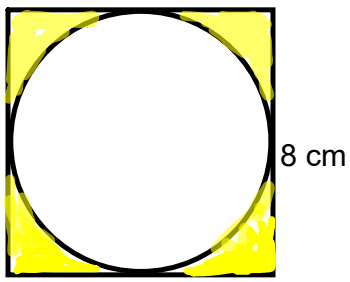
You need out your Agenda, warm up & hw

Homework: Surface Area Practice

Warm Up:

1. Find the area of the shaded region:



d = 8

r = 4

A = π · r · r

3.14 x 4 x 4

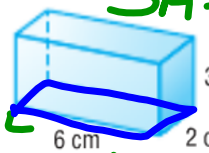
50.24

64.00

- 50.24

13.76

2. I want to paint the following box except the bottom. How much will be painted total?



SA = 2(l·w) + 2(l·h) + 2(h·w)

SA = 2(6·2) + 2(6·3) + 2(3·2)

2(12) 2(18) + 2(6)

24 + 36 + 12

72 - 12 = 60

① $2(8\times4)+2(8\times11)+2(4\times11)$

$2\cdot88$ $2\cdot44$

$64+176+88$

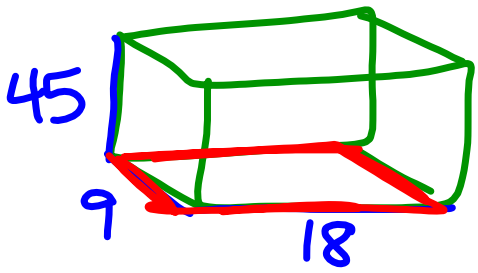
$328\ in^2$

② $220\ in^2$

$2(10\times4)+2(10\times5)+2(4\times5)$

$2\cdot40$ $2\cdot50$ $2\cdot20$

$80+100+40$



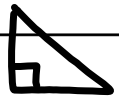
$1(9 \times 18) + 2(18 \times 45) + 2(9 \times 45)$

$162 + 1620 + 810$

$2{,}592$

SURFACE AREA OF A TRIANGULAR PRISM:

There are 2 types of triangular prisms:

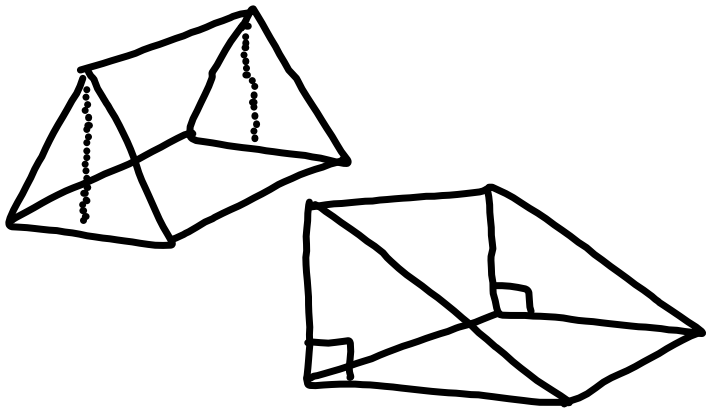
>Right Triangular Prism 

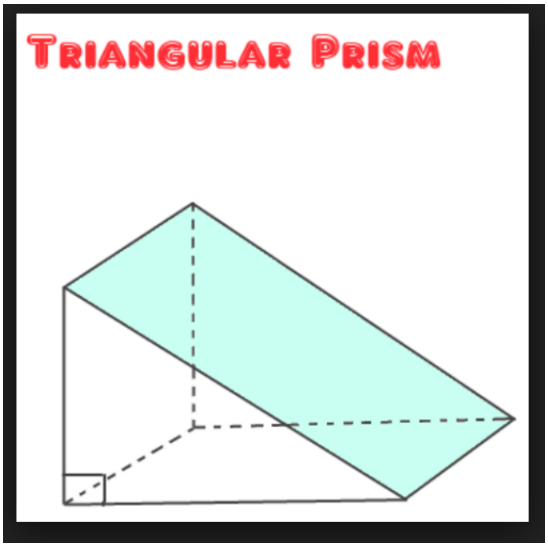
>Isosceles Triangular Prism (tent)

To find the surface area, we must find the area of all of the surfaces:

We know we always have:

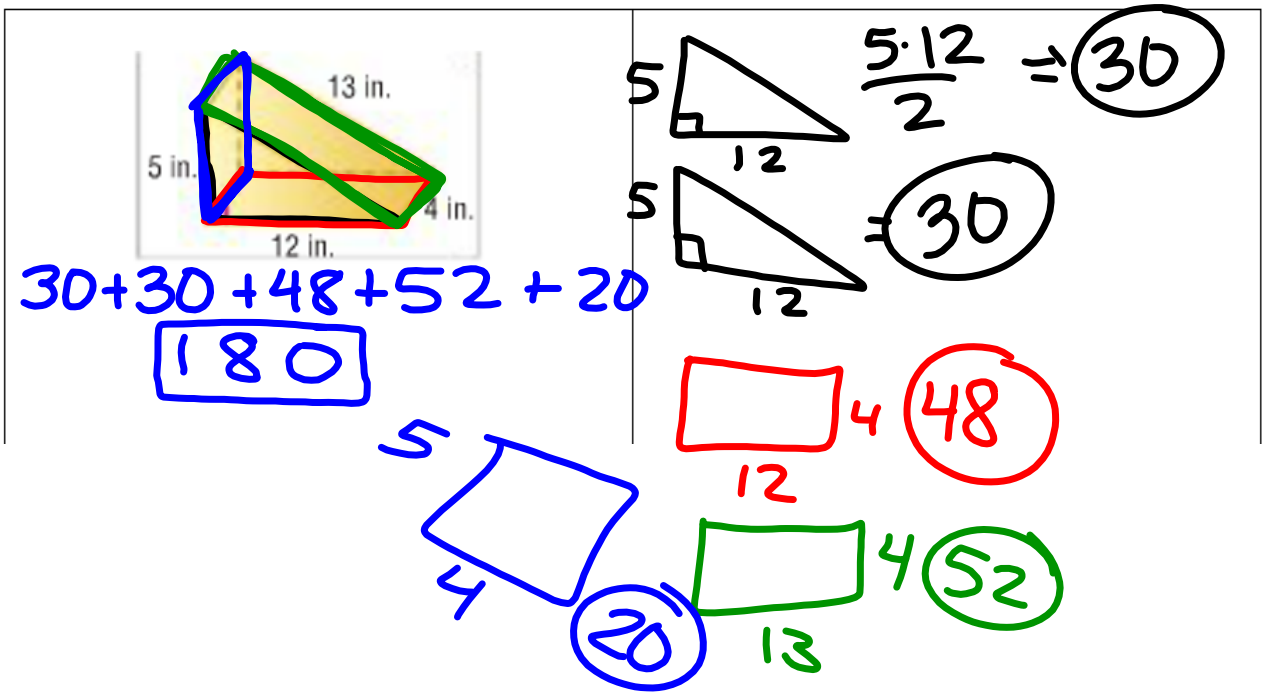
2 triangles $A = \frac{bxh}{2}$ & 3 rectangles $A = b \times h$




Triangular Prism

Right Triangular Prism

2 identical triangles
3 different rectangles



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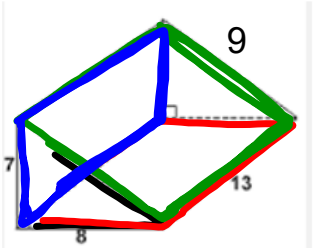


$28+28+104+117+91$

368

7 8 $\frac{7 \cdot 8}{2} = 28$

7 8 28

13 8 104

13 9 117

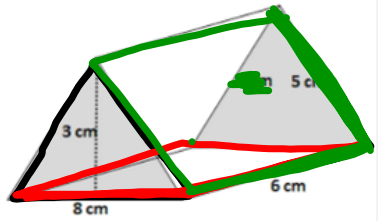
13 9

Isosceles Triangular Prism

2 identical triangles

2 identical rectangles (roof of tent)

1 different triangle (bottom)

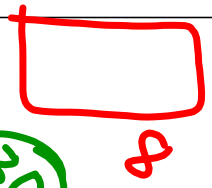


$12 + 12 + 48 + 30 + 30$

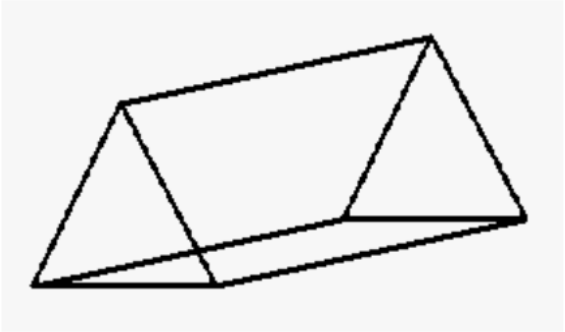
132

$\frac{3 \cdot 8}{2}$ 12

12



48



Isosceles Triangular Prism

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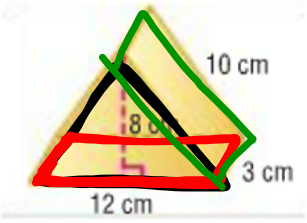


$48+48+36+30+30$

192

$\frac{8 \cdot 12}{2}$ 48

8 12

8 12 48

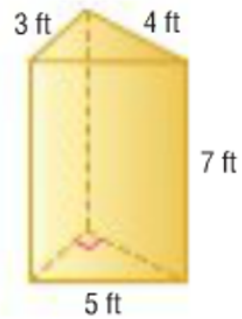
36 3

30 10 3

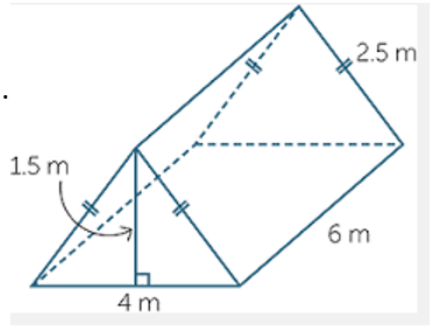
12 30

Surface Area of Prisms- Homework

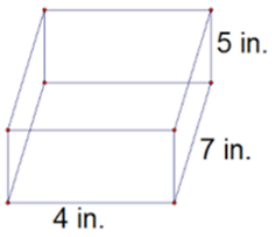
1.



2.



3.



Sit silently for the news