Warm Up Grade 8

May 24,2017

Assessment Review

1. Leah has 3/4 of a large pizza. She gave 1/3 of what she had to Jessie. What fraction of the whole pizza does Jessie receive? What fraction of the whole pizza does Leah have left?

part

part 2

Leah − Jessie

$\frac{3}{4} - \frac{1}{4}$

$\frac{2}{4} = \frac{1}{2}$

Leah has $\frac{1}{2}$ the pizza left

Jessie $\frac{1}{3}$ of $\frac{3}{4}$

$\frac{1}{3} \times \frac{3}{4} = \frac{3}{12} = \frac{1}{4}$

Jessie gets $\frac{1}{4}$ of the whole pizza

Mental Math

1) 58 + 36

60 + 36 ≈ 96

added 2 too many

Ans = 94

2) 8 x 1.5

half ↓ double ↓

4 x 3

12

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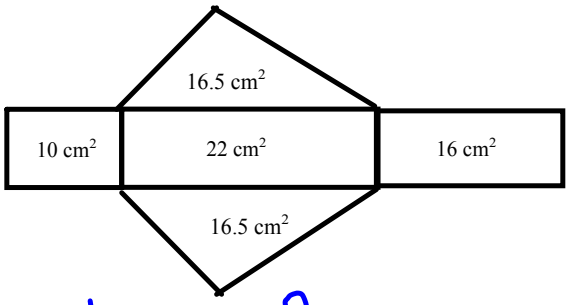
4.

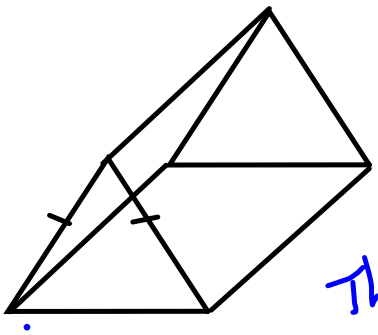


Find the surface area by adding the areas of all faces

SA = 10 + 22 + 16 + 16.5 + 16.5
= 48 + 33
= 81

or 10 + 22 + 16 + 2 x 16.5
= 48 + 33
= 81

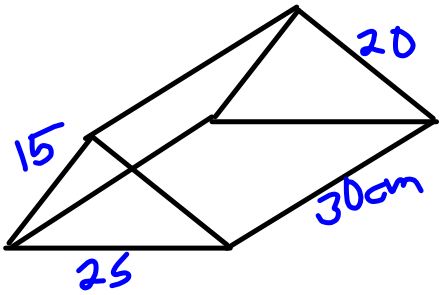
5.

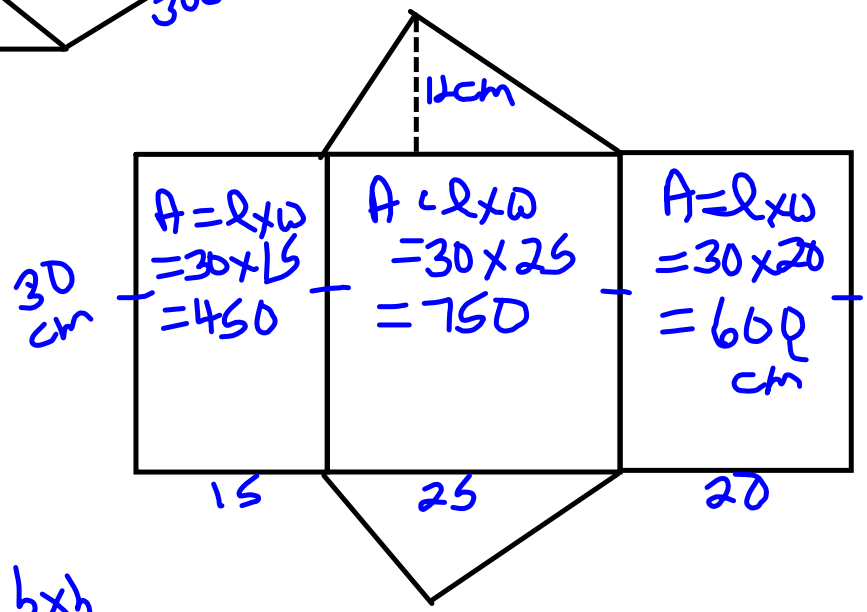


The bases of any prism are congruent and share the same area

The rectangles on the sides are congruent (since the lengths of the 2 sides in the triangle are the same).

6.





$A_\Delta = \frac{bxh}{2}$

$= \frac{25x12}{2} = \frac{300}{2}$

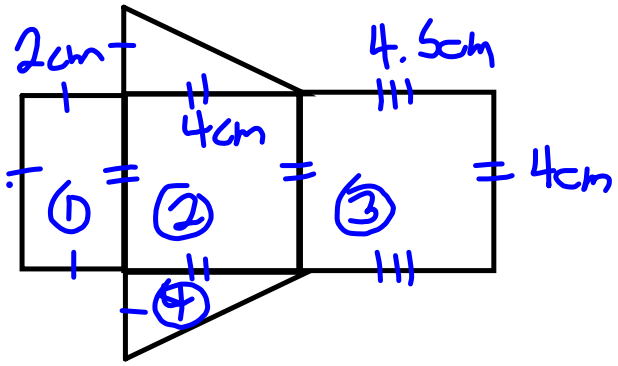
$= 150cm^2$

$SA = 2x150 + 450 + 750 + 600$

$= 300 + 450 + 750 + 600$

$= 2100cm^2$

7. a)



$A_{①} = l \times w$
$= 4 \times 2$
$= 8 cm$

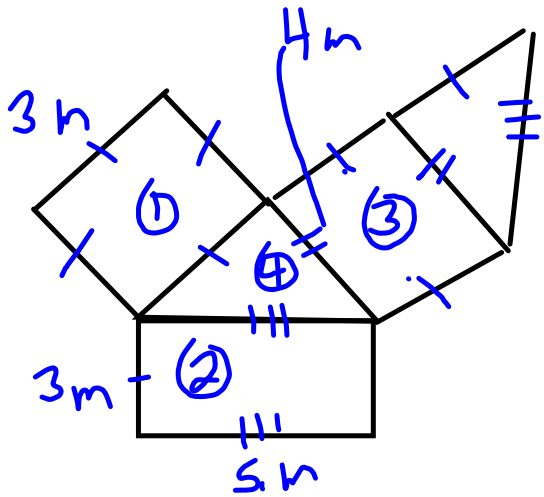
$A_{②} = l \times w$
$= 4 \times 4$
$= 16 cm^2$

$A_{③} = l \times w$
$= 4.5 \times 4$
$= 18 cm^2$

$A_{④} = \frac{b \times h}{2}$
$= \frac{4 \times 2}{2}$
$= 4 cm^2$

$SA = 2 \times 4 + 8 + 16 + 18$
$= 8 + 8 + 16 + 18$
$= 50 cm^2$

7b)



$A_{①} = l \times w$
$= 3 \times 3$
$= 9\ m^2$

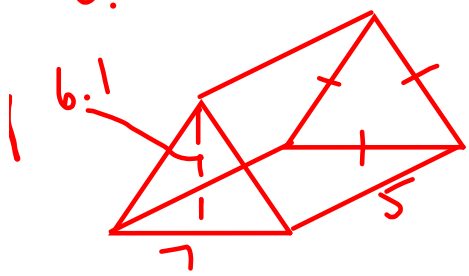
$A_{②} = l \times w$
$= 3 \times 5$
$= 15\ m^2$

$A = l \times w$
$= 4 \times 3$
$= 12\ m^2$

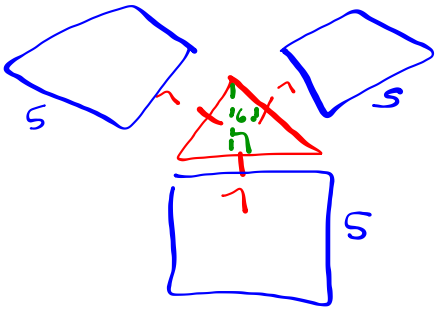
$A_{④} = \frac{b \times h}{2}$
$= \frac{4 \times 3}{2}$
$= 6m^2$

$SA = 2 \times 6 + 9 + 15 + 12$
$= 12 + 9 + 15 + 12$
$= 48\ m^2$

8. Prism A



Front & Back



Sides

② $A = \frac{b \times h}{2}$

$= \frac{7 \times 6.1}{2}$

$= \frac{42.7}{2}$

$= 21.35$

③ $A = l \times w$

$= 7 \times 5$

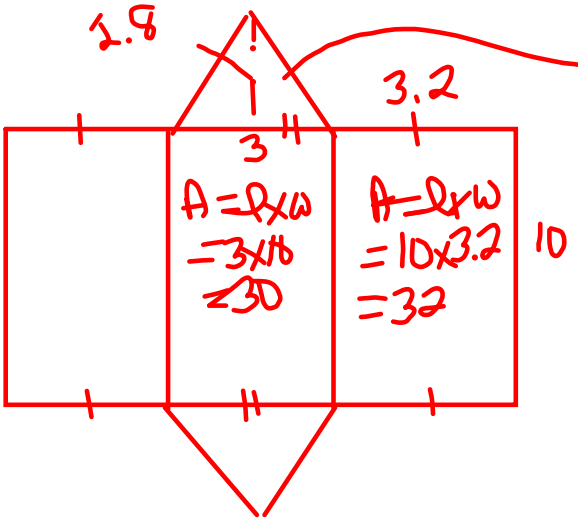
$= 35$

$SA = 2 \times 21.35 + 3 \times 35$

$= 42.7 + 105$

$= 147.7 \text{ cm}^2$

b)



$A_\Delta = \frac{b \times h}{2}$

$= \frac{3 \times 2.8}{2}$

$= \frac{8.4}{2}$

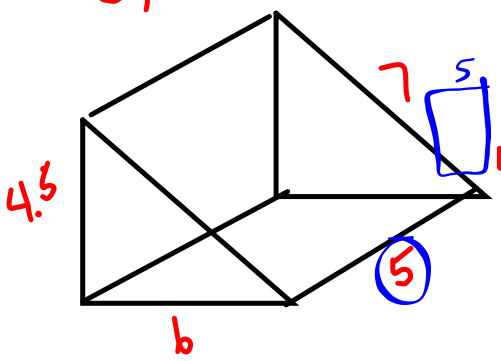
$= 4.2$

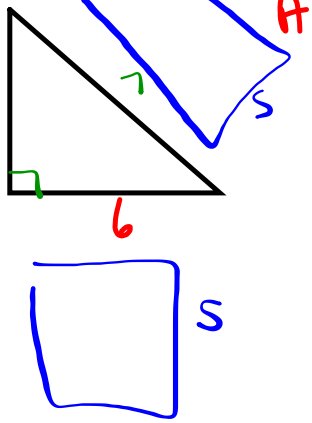
$SA = 2 \times 32 + 30 + 2 \times 4.2$

$= 64 + 30 + 8.4$

$= 102.2 \text{ cm}^2$

8 c)





$A = \frac{b \times w}{2}$

$= \frac{6 \times 4.5}{2}$

$= \frac{27}{2}$

$= 13.5 \text{ cm}^2$

Sides

$A = l \times w$

$= 6 \times 5$

$= 30$

$A = l \times w$

$= 5 \times 4.5$

$= 22.5$

$A = l \times w$

$= 7 \times 5$

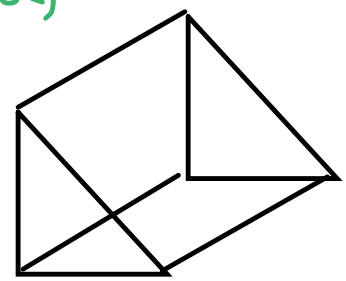
$= 35$

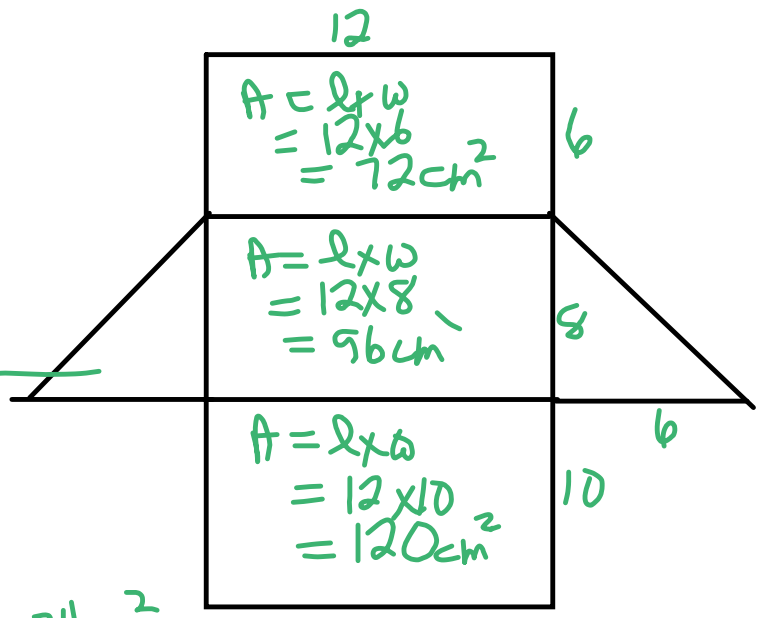
Total SA $= 2(13.5) + 30 + 22.5 + 35$

$= 27 + 30 + 22.5 + 35$

$= 114.5 \text{ cm}^2$

9 a)





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

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

$= \frac{48}{2} = 24 cm^2$

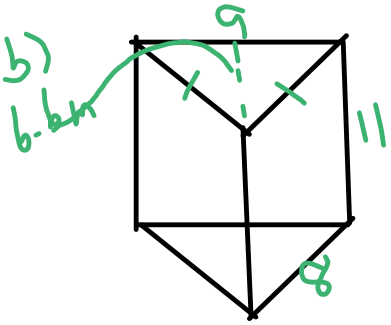
$A = l \times w$
$= 12 \times 6$
$= 72 cm^2$

$A = l \times w$
$= 12 \times 8$
$= 96 cm^2$

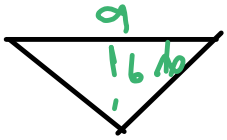
$A = l \times w$
$= 12 \times 10$
$= 120 cm^2$

$SA = 2 \times 24 + 72 + 96 + 120$
$= 48 + 72 + 96 + 120$
$= 236 cm^2$

b)



Base



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

$= \frac{9 \times 6.6}{2}$

$= \frac{59.4}{2}$

$= 29.7 m^2$

Sides

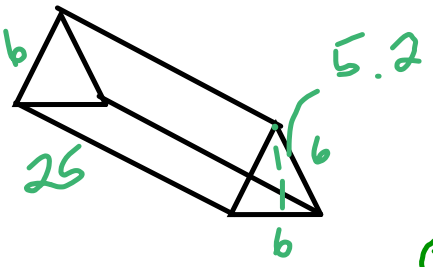
$A = l \times w$
$= 11 \times 8$
$= 88 m^2$

Bottom

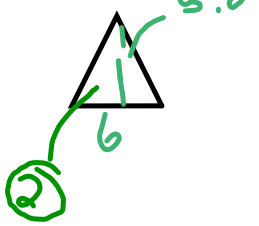
$A = l \times w$
$= 11 \times 9$
$= 99 m^2$

$SA = 2 \times 29.7 + 2 \times 88 + 99$
$= 59.7 + 176 + 99$
$= 334.4 m^2$

c)



Bases



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

$= \frac{6 \times 5.2}{2}$

$= \frac{31.2}{2}$

$= 15.6 \text{ mm}^2$

Sides

$A = l \times w$

$= 25 \times 6$

$= 150 \text{ mm}^2$

$SA = 2 \times 15.6 + 3 \times 150$

$= 31.2 + 450$

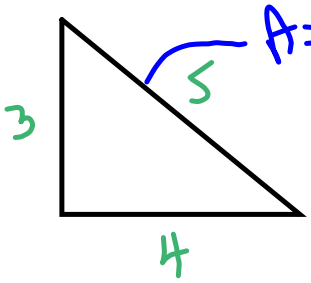
$= 481.2 \text{ mm}^2$

10.

$A = 30 cm^2$ $A = 3 \times 10$

$A = 40 cm^2$ $A = 4 \times 10$

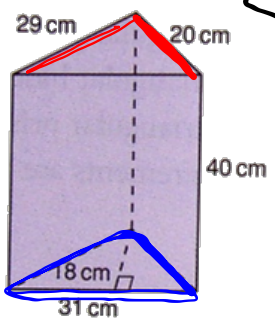
$A = 50 cm$ $A = 5 \times 10$



$A = 6 cm^2$ $\frac{3 \times 4}{2} = 6$

The dimension of the triangle are:
base 4cm, height - 3cm (other side 5cm)
and the height of the prism
is 10 cm

This right triangular prism is a door stop and needs to be covered in tar on the outside faces. What is the surface area to be covered?



40 cm
A = b x h
= 40 x 29 cm
= 1160 cm²
29 cm

40 cm
A = b x h
= 40 x 20
= 800 cm²
20 cm

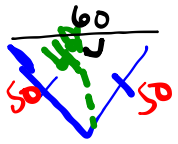
18
31 cm

A = b x h
= 31 x 40
= 1240 cm²
40 cm

$A_\Delta = \frac{b \times h}{2}$
$= \frac{31\text{cm} \times 18\text{cm}}{2}$
$= \frac{558\text{cm}^2}{2}$
$= 279\text{cm}^2$

Total SA = 2△ + □ + □ + □
$= 2(279\text{cm}^2) + 1160\text{cm}^2 + 800\text{cm}^2 + 1240\text{cm}^2$
$= 558\text{cm}^2 + 1160\text{cm}^2 + 800\text{cm}^2 + 1240\text{cm}^2$
$= 3758\text{cm}^2$

Class/Homework



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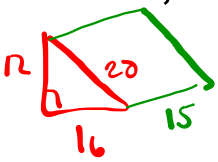
#11, #12(use an example), #13 ~~#14~~,



Sheet #1, 2, 3, 4

Quiz Friday

Attachments

Review of Surface area of 2D Shape Grade 8 Unit 4 PDF.pdf

Surface Area of Prisms WS Review PDF.pdf