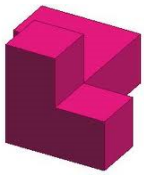
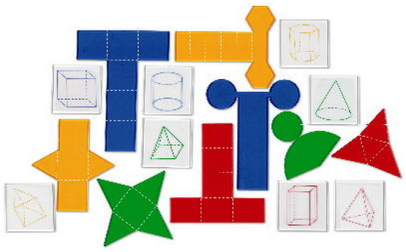


Warm Up Grade 8

May 10, 2016



Assessment Review

1. Maribeth works in a dog rescue centre. At feeding time, 5 of the dogs get $\frac{3}{4}$ kg of food and 3 dogs get $\frac{3}{5}$ kg of food. How much food does Maribeth feed to the dogs?

$\frac{3}{4}+\frac{3}{4}+\frac{3}{4}+\frac{3}{4}+\frac{3}{4}+\frac{3}{5}+\frac{3}{5}+\frac{3}{5}$

$\frac{15}{4}$ $\frac{9}{5}$

Need Common Denominator

$\frac{75}{20}$ $\frac{36}{20}$

OR $5\times\frac{3}{4}+3\times\frac{3}{5}$

$\frac{15}{4}+\frac{9}{5}$

$\frac{75}{20}+\frac{36}{20}$

$=\frac{111}{20}$

$=5\frac{11}{20}$ kg

2. Use mental math.

a) 25% of 16

$\frac{1}{4}$ of 16

$16\div 4$

$=4$

b) $700-249$

$700-250$

$450+1$

451

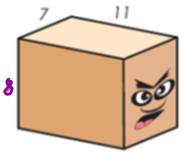
Subtract two more

More

Sketch each face and find the area (Show all work)

1)

a)



S/S A = bxh = 7 x8 = 56

F/B A = bxh = 11 x8 = 88

T/Bo A = bxh = 7 x11 = 77

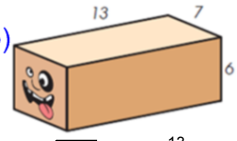
Total =2(Front +Side+Top)

= 2(56 + 88 + 77)

= 2(221)

= 442 unit²

b)



S/S A = bxh = 7 x6 = 42

F/B A = bxh = 13 x6 = 78

T/Bo A = bxh = 7 x13 = 91

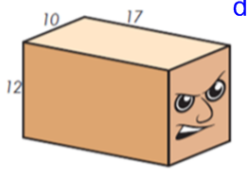
Total =2(Front +Side+Top)

= 2(42+ 78 + 91)

= 2(211)

= 422 unit²

c)



Afront = 12x17 = 204

Aside = 12x10 = 120

Atop = 17x10 = 170

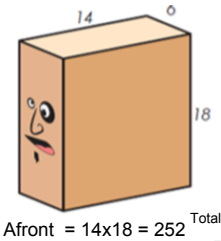
Total =2(Front +Side+Top)

= 2(204+ 120 + 170)

= 2(494)

= 988 unit²

d)



Afront = 14x18 = 252

Aside = 6x18 = 108

Atop = 14x6 = 84

Total =2(Front +Side+Top)

= 2(252+ 108 + 84)

= 2(444)

= 888 unit²

2) Find the surface area of a right rectangular prism with these dimensions.

a) 12 m by 10 m by 13 m

A = bxh = 12 x 10 = 120 m²

A = bxh = 12 x 13 = 156 m²

A = bxh = 13 x 10 = 130m²

Total =2(Front +Side+Top)

= 2(120+ 156 + 130)

= 2(406)

= 812 m²

b) 5 cm by 7 cm by 9 cm

A = 5x7 = 35cm²

A = 7x9 = 63cm²

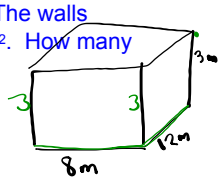
A = 5x9 = 45cm²

$A_T = 2(35 + 63 + 45)$

$= 2(143\text{cm}^2)$

$= 286\text{cm}^2$

3) Jim is painting the 4 walls of a classroom. The room measures the following 8 m wide by 12 m long and 3 m high. The walls need 2 coats of paint. A can a paint will cover 50 m². How many cans of paint should he buy? (Must Show All work)



Floor 8x12

Wall 8x3 = 24m² x2walls = 48m²

Wall 12x3 = 36m² x2walls = 72m²

1st coat = 48 + 72 = 120 m²

x 2 coats = 240 m²

1 can = 50m²

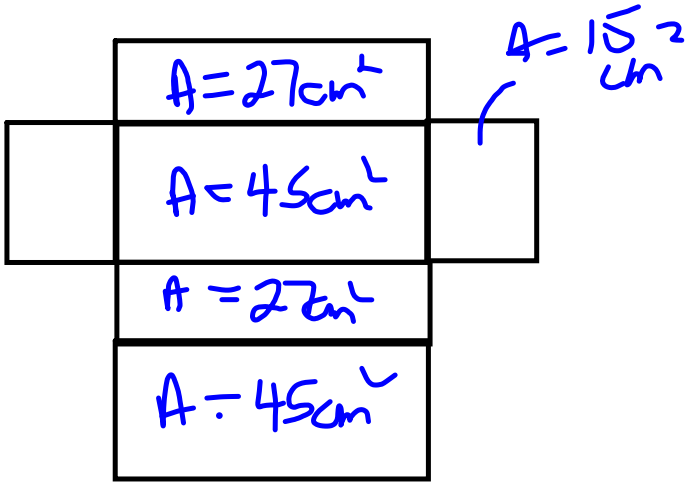
240m² ÷ 50m² = 4.8 cans

so

5 cans needed

Pg 186

4.



$SA = 2\times15 + 2\times45 + 2\times27$

$= 30 + 90 + 54$

$= 174\ cm^2$

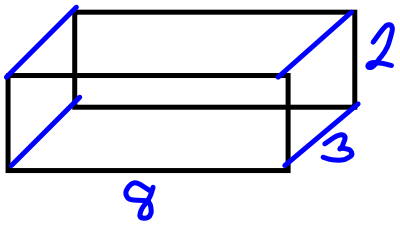
I added all the areas.

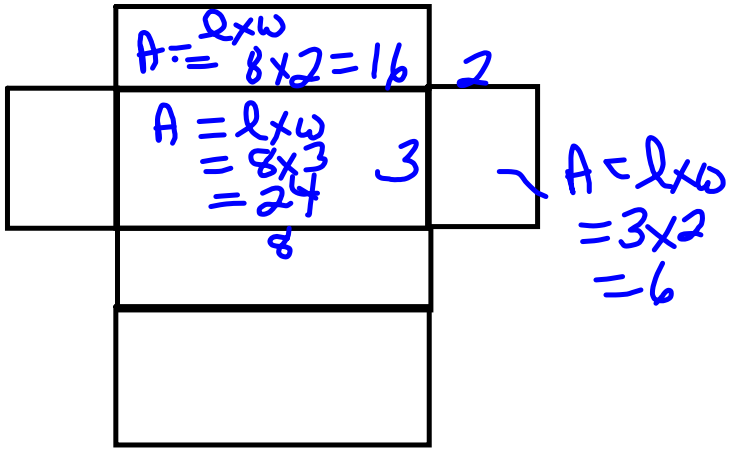
$SA = 15+27+45+15+27+45$

$=$

$= 174cm^2$

5.





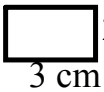
top/bottom

A = l x w

= 8 cm x 3 cm

= 24 cm²

side/side

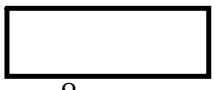


A = l x w

= 2 cm x 3 cm

= 6 cm²

front/back



A = l x w

= 2 cm x 8 cm

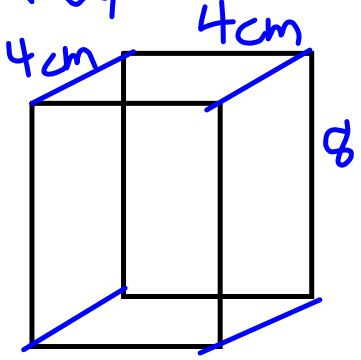
= 166 cm²

SA = 2x16 + 2x24 + 2x6

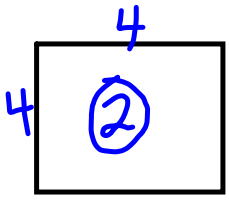
= 32 + 48 + 12

= 92 cm²

6 a)

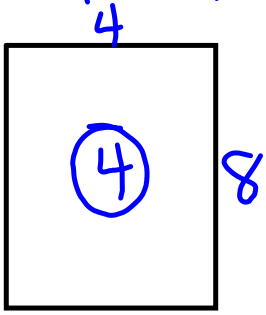


Top and Botton



$A = l \times w$
$= 4 \times 4$
$= 16 cm^2$

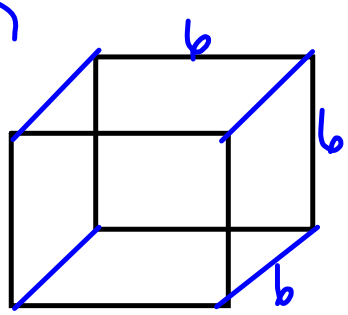
Front, Back, Sides



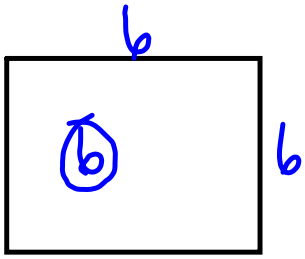
$A = l \times w$
$= 8 \times 4$
$= 32 cm^2$

$SA = 2 \times 16 + 4 \times 32$
$= 32 + 128$
$= 160 cm^2$

b)



Cube - All faces the same

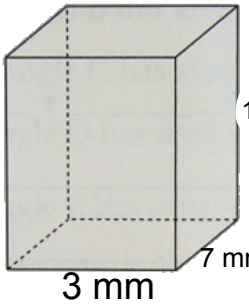


$A = l \times w$
$= 6 \times 6$
$= 36 cm^2$

$SA = 6 \times 36$
$= 216 cm^2$

What is the surface area of this prism?

Sketch the faces



Bott/top

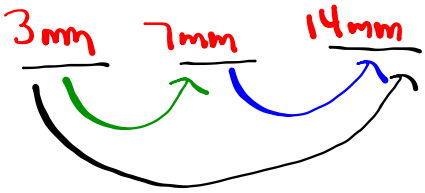
$A = l \times w$
$= 3mm \times 7mm$
$= 21mm^2$

Sides/Side

$A = l \times w$
$= 7mm \times 14mm$
$= 98mm^2$

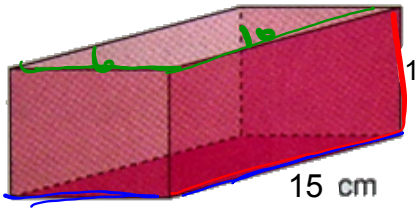
Front/Back

$A = l \times w$
$= 14mm \times 3mm$
$= 42mm^2$



$A_{Total} = 2(21mm^2 + 98mm^2 + 42mm^2)$
$= 2(161mm^2)$
$= 322mm^2$

Sketch a net of this right rectangular prism.
What is its surface area? Fish tank (No top



6 15 10

Fr/Back
10
6

$A = l \times w$
$= 6 \times 10$
$= 60 cm^2$

Top/Bottom
15
6

$A = l \times w$
$= 6 \times 15$
$= 90 cm^2$

No top

Side/Side
10
15

$A = l \times w$
$= 15 \times 10$
$= 150 cm^2$

$A_{Total} = 2(\text{side} + \text{Front}) + \text{Bottom}$
$= 2(150 + 60) + 90$
$2(210) + 90$
$420 + 90$
$510 cm^2$

Class/Homework

~~Page 186~~ already did???

~~#6c, #7a,b, #9, #10, #11, #12, #13~~

Worksheet

Remember a cube has 6 equal faces

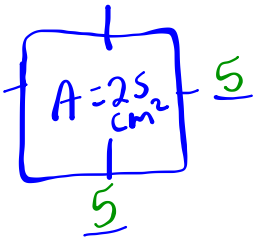
3a) S.A. of cube = 150cm²

= 6 × (Area of 1 face)

Area of 1 face = 150cm² ÷ 6

= 25cm²

b)



side of square = $\sqrt{\text{Area of square}}$

= $\sqrt{25cm^2}$

= 5cm

Attachments

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

Extra Practice 2 Unit 4.3.docx