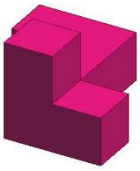
Warm Up Grade 8



Assessment Review

1) Write the following as a fraction, decimal and a percent. "15 out 42"

$\frac{15}{42} = 0.35 \Rightarrow 35\%$

2) Write an equation then solve with algebra for "Jim earn seven dollars per hour and his grandma gives him fifty dollars for his birthday. How many hours does he have to work in order to have a total of $148?

$7h + 50 = 148$

$7h + 50 - 50 = 148 - 50$

$7h = 98$

$\div 7 \quad \div 7$

$h = 14$

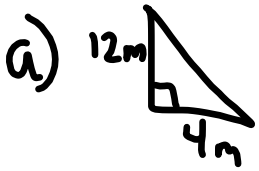
Jim has to work 14 hours to get $148.

Review from yesterday

1) Sketch the diagram and find the area for each shape.

a) a triangle with a base of 4m and a height of 12m

b) a circle with a diameter of 22 cm

a) 

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

$= \frac{4m \times 12m}{2}$

$= \frac{48m^2}{2}$

$= 24m^2$

b) 

$r = 11cm$

$A_o = \pi r^2$

$= 3.14 (11cm)^2$

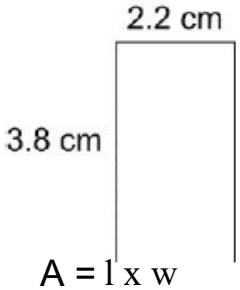
$= 3.14 \times 121cm^2$

$= 379.9cm^2$

Area of Two-Dimensional Shapes

1) Find the area of each shape.

a)

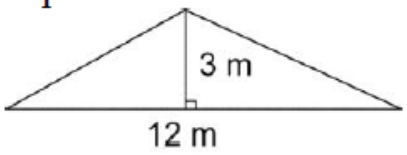


A = l x w

= 3.8 cm x 2.2 cm

= 8.32 cm^2

b)



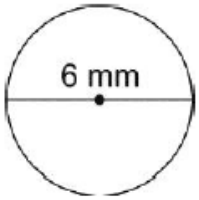
$A = \frac{b \times h}{2}$

$= \frac{12\ m \times 3\ m}{2}$

$= \frac{36\ m^2}{2}$

= 18 m^2

c)



$A = \pi r^2$

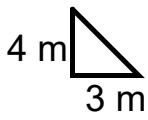
$= 3.14 \times (3\ mm)^2$

$= 3.14 \times (9 mm^2)$

= 28.26 mm^2

2) Find the area of the each shape and sketch the shape.

a. A triangle with height 3 m and base 4 m



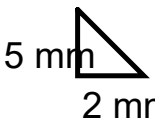
$A = \frac{b \times h}{2}$

$= \frac{4\text{ m} \times 3\text{ m}}{2}$

$= \frac{12\text{ m}^2}{2}$

$= 6\text{ m}^2$

b. A triangle with height 2 mm and base 5 mm



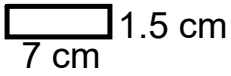
$A = \frac{b \times h}{2}$

$= \frac{2\text{ mm} \times 5\text{ mm}}{2}$

$= \frac{10\text{ mm}^2}{2}$

$= 5\text{ mm}^2$

c. A rectangle with length 7 cm and width 1.5 cm

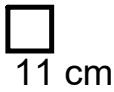


$A = l \times w$

$= 7\text{ cm} \times 1.5\text{ cm}$

$= 10.5\text{ cm}^2$

d. A square with side length 11 cm

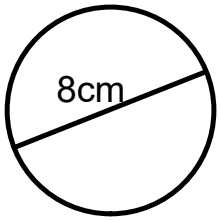


$A = l \times w$

$= 11\text{ cm} \times 11\text{ cm}$

$= 121\text{ cm}^2$

e. A circle with diameter 8 cm



$A = \pi r^2$

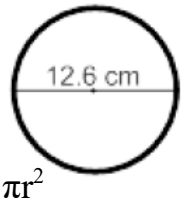
$= 3.14 \times (8\text{ cm})^2$

$= 3.14 \times (64\text{ cm}^2)$

$= 200.96\text{ cm}^2$

3) Find the surface Area

a)



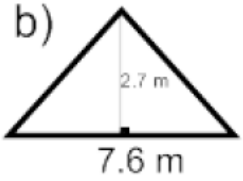
$A = \pi r^2$

$= 3.14 \times (6.3\ cm)^2$

$= 3.14 \times (39.69\ m^2)$

$= 126.6266\ cm^2$

b)



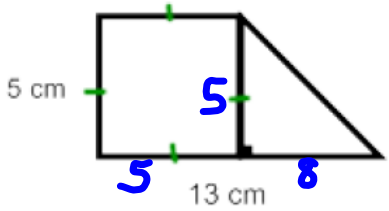
$A = \frac{b \times h}{2}$

$= \frac{7.6\ m \times 2.7\ m}{2}$

$= \frac{20.52\ m^2}{2}$

$= 10.26\ m^2$

c)



$A = l \times w$

$= 5\ cm \times 5\ cm$

$= 25\ cm^2$

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

$= \frac{8\ cm \times 5\ cm}{2}$

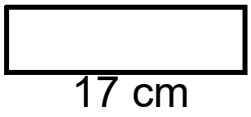
$= \frac{40\ cm^2}{2}$

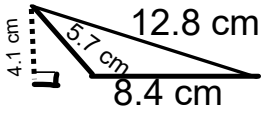
$= 20\ cm^2$

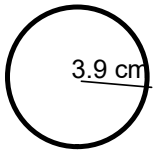
Atotal = 20 + 25 = 45

Name:_____

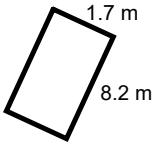
1) Find the area of each shape (Show all work)

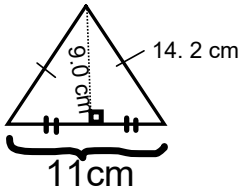
a) 

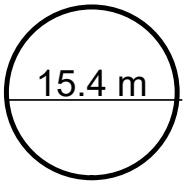
b) 

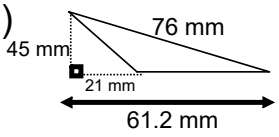
c) 

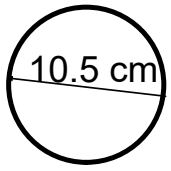
d) 

e) 

f) 

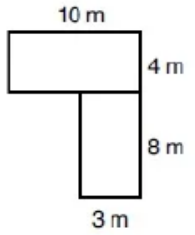
g) 

h) 

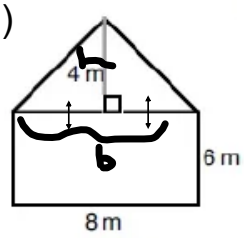
i) 

2) Find the total surface area of the combined shapes (Show all work)

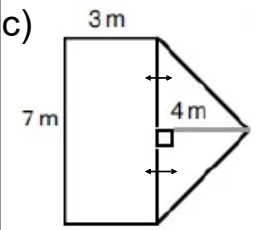
a)



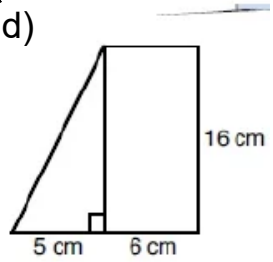
b)



c)



d)



3) Find the surface area of each shape.

a) A triangle with a base of 7 cm and a height of 14 cm.

b) a circle with a diameter of 34 cm.

c) A Rectangle with a length of 16 cm and the height double that.

d) A square with side length 23 m.

e) A rectangle with base 42m and height length of 15 m less than base.

f) A circle with radius 6.2 mm.

Attachments

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