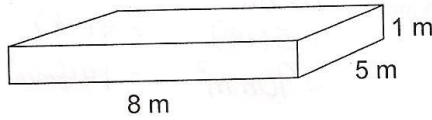


RÉVISION - MODULE 4

Nom : Solutions Date: _____

1) Détermine l'aire totale de ce prisme droit à base rectangulaire.



$A = bh$

$1 \times 5 \times 2 \rightarrow 1(5) = 5m^2 \times 2 = 10m^2$
 $1 \times 8 \times 2 \rightarrow 1(8) = 8m^2 \times 2 = 16m^2$
 $5 \times 8 \times 2 \rightarrow 5(8) = 40m^2 \times 2 = 80m^2$

106m²

2) Glenda et Louis conçoivent chacun un emballage rectangulaire. Lequel des emballages a la plus grande aire totale? Montre ton travail.

L'emballage de Glenda:

$A = bh = 8(12) = 96cm^2 \times 2 = 192cm^2$
 $A = bh = 12(20) = 240cm^2 \times 2 = 480cm^2$
 $A = bh = 8(20) = 160cm^2 \times 2 = 320cm^2$

$A = 992cm^2$

L'emballage de Louis:

$A = bh = 6(10) = 60cm^2 \times 2 = 120cm^2$
 $A = bh = 24(10) = 240cm^2 \times 2 = 480cm^2$
 $A = bh = 24(6) = 144cm^2 \times 2 = 288cm^2$

$A = 888cm^2$

3) L'aire de la surface d'un cube est de $294cm^2$.

a. Quelle est l'aire de chaque face du cube? $294cm^2 \div 6 = 49cm^2$

b. Quelle est la longueur d'une arête du cube? $\sqrt{49cm^2} = 7cm$

4) Détermine l'aire totale de chaque prisme.

a)

$A = \frac{bh}{2} = \frac{6(4)}{2} = 12 \times 2 = 24cm^2$
 $A = 55cm^2 \times 2 = 110cm^2$
 $A = 66cm^2$

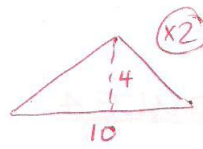
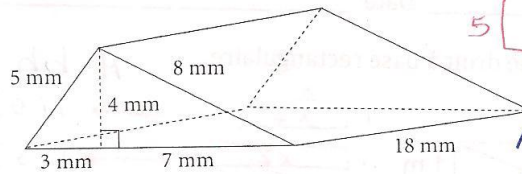
$A = 200cm^2$

b)

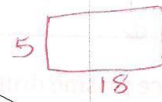
$A = \frac{bh}{2} = \frac{12(5)}{2} = 30m^2 \times 2 = 60m^2$
 $A = 50m^2$
 $A = 120m^2$
 $A = 130m^2$

$A = 360m^2$

5) Calcule l'aire totale de ce prisme.



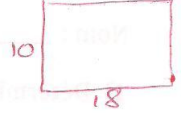
$$A = \frac{bh}{2} = \frac{10(4)}{2} = 20 \times 2 = 40 \text{ mm}^2$$



$$A = bh = 5(18) = 90 \text{ mm}^2$$



$$A = bh = 8(18) = 144 \text{ mm}^2$$

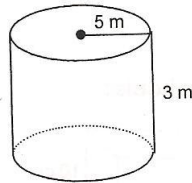


$$A = bh = 10(18) = 180 \text{ mm}^2$$

$$A = \underline{\underline{454 \text{ mm}^2}}$$

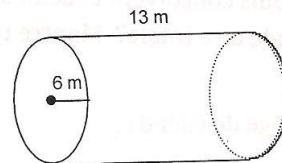
6) Détermine l'aire de la surface de chaque cylindre.

a.



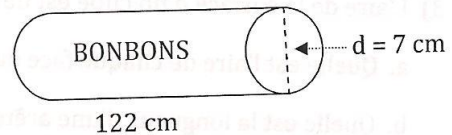
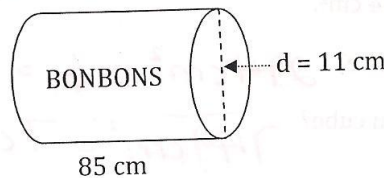
$$A = 2\pi r^2 + 2\pi rh = 2(3,14)(5)(5) + 2(3,14)(5)(3) = 157 + 94,2 = \underline{\underline{251,2 \text{ m}^2}}$$

b.



$$A = 2\pi r^2 + 2\pi rh = 2(3,14)(6)(6) + 2(3,14)(6)(13) = 226,08 + 489,84 = \underline{\underline{715,92 \text{ m}^2}}$$

7) Maude et Alexandre ont tous deux acheté un tube de bonbons. Les deux ont coûté le même montant. La fabrication de quel tube a exigé le plus de plastique?



$$A = 2\pi r^2 + 2\pi rh = 2(3,14)(5,5)(5,5) + 2(3,14)(5,5)(85) = 189,97 + 2935,9 = \underline{\underline{3125,87 \text{ cm}^2}}$$

$$A = 2\pi r^2 + 2\pi rh = 2(3,14)(3,5)(3,5) + 2(3,14)(3,5)(122) = 76,93 + 2681,56 = \underline{\underline{2758,49 \text{ cm}^2}}$$