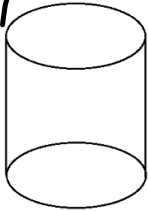
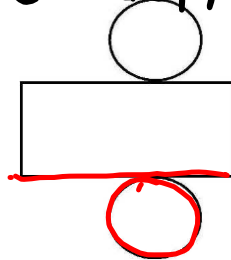


cylindre



Pour déterminer l'aire de la surface, ou l'aire totale, de ce cylindre, trace un développement.

développement



circonférence

$$C = \pi d$$

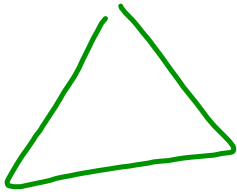
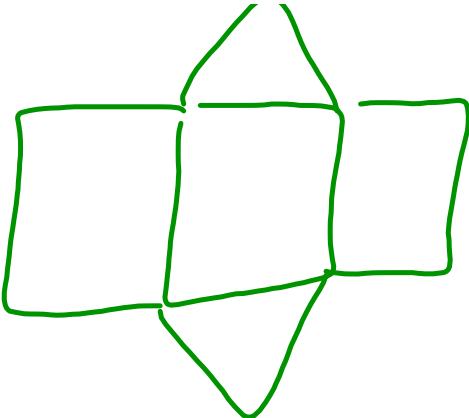
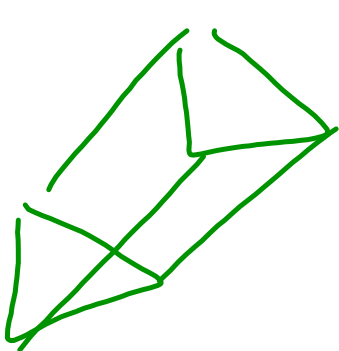
$$C = 2\pi r$$

$$\frac{d}{2} = r$$

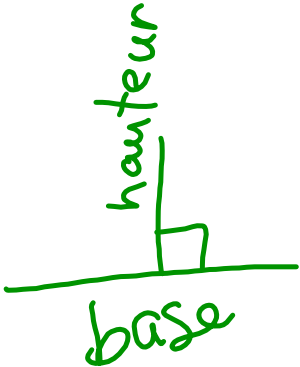
Aire totale = 2 x Aire d'un cercle + Aire du rectangle.

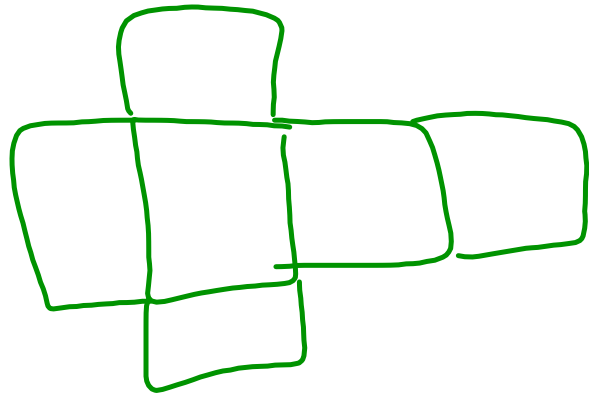
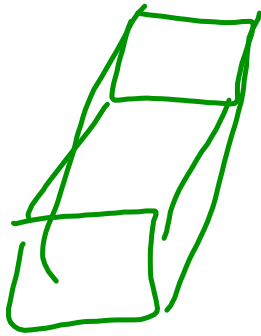
Aire du rectangle = Circonférence x Hauteur

$$2 \times \pi r r + 2\pi r(h)$$

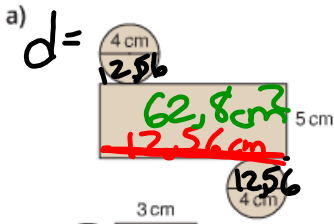


$$A_{\Delta} = \frac{bh}{2}$$





4. Détermine l'aire des développements.



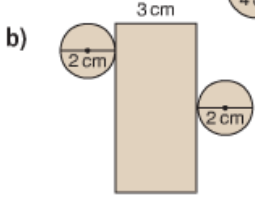
p. 212 Q 4, 6, 8, 9, et 12

$$A_0 = \pi r r$$

$$= (3,14) (2 \text{ cm}) (2 \text{ cm})$$

$$= 12,56 \text{ cm}^2$$

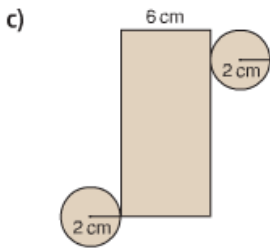
$$\frac{d}{2} = r = \frac{4}{2} = 2$$



$$C = \pi d$$

$$= 3,14 (4 \text{ cm})$$

$$= 12,56 \text{ cm}$$



$$A_{\square} = b h$$

$$(12,56 \text{ cm}) (5 \text{ cm})$$

$$A_{\square} = 62,8 \text{ cm}^2$$

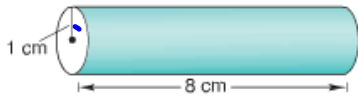
$$\begin{array}{r} 12,56 \text{ cm}^2 \\ \times 12,56 \text{ cm}^2 \\ 62,8 \text{ cm}^2 \\ \hline 87,92 \text{ cm}^2 \end{array}$$

$$\begin{array}{r} 87,92 \\ \quad \quad \quad \smile \\ 88 \text{ cm}^2 \end{array}$$

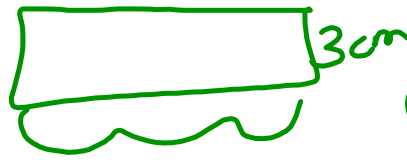
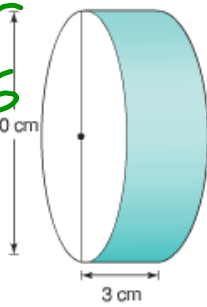
unité
dixième 0,1
centième 0,01

6. Calcule l'aire de la surface courbe de chaque tube.

a)



b)
 $\frac{210}{360} \times 2\pi r$
 $= \frac{1}{6} \times 2\pi r$



$$C = \pi d$$

$$C = 3,14(10)$$

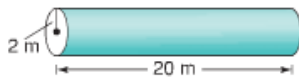
$$C = 31,4 \text{ cm.}$$

$$A_{\square} = bh$$

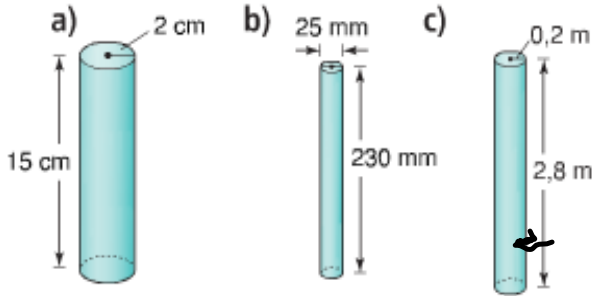
$$31,4 \text{ cm} (3 \text{ cm})$$

$$94,2 \text{ cm}^2$$

c)



8. Détermine l'aire de la surface de chaque cylindre.



$$8.a) A_o = \pi r^2 h$$

$$(3,14)(2)(2)$$

$$= 12,56$$

$$C = 2\pi r$$

$$(2)(3,14)(2)$$

$$= 12,56$$

$$A_o = bh$$

$$(15\text{ cm})(12,56\text{ cm})$$

$$= 188,4$$

$$12,56$$

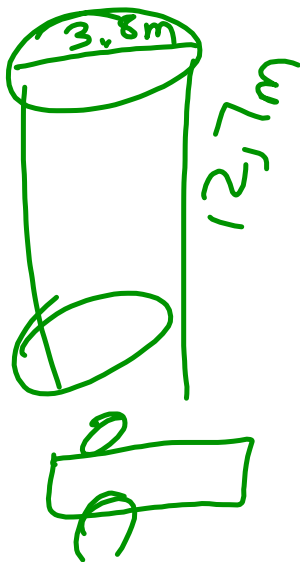
$$12,56$$

$$188,40$$

$$\boxed{213,52\text{ cm}}$$

9. Un réservoir cylindrique a un diamètre de 3,8 m et une longueur de 12,7 m.
Quelle est l'aire totale de ce réservoir?

$$\frac{3,8}{2} = 1,9$$

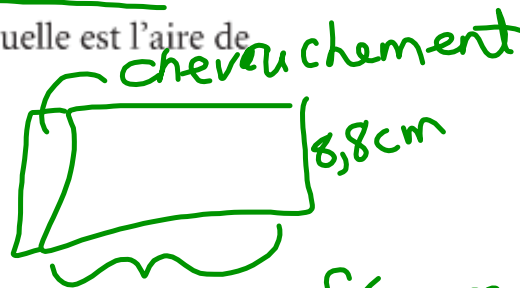


$$A_{\text{I}} = 2 \times \pi r r + \pi d h$$
$$2(3,14)(1,9)(1,9) + 3,14(3,8)12,7$$

$$174,21 \text{ m}^2$$

12. Objectif d'évaluation

Une boîte de soupe a un diamètre de 6,6 cm. Son étiquette a une hauteur de 8,8 cm. Il y a un chevauchement de 1 cm sur l'étiquette. Quelle est l'aire de l'étiquette?



La circonférence

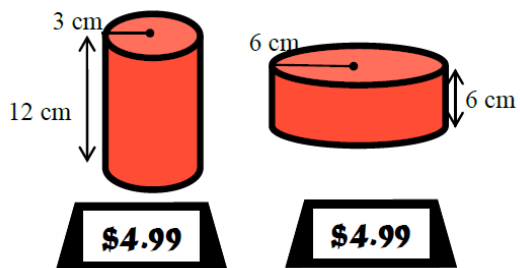
$$C = \pi d$$

$$3,14(6,6\text{cm})$$

$$20,73\text{cm}$$

$$\begin{array}{r} 20,73 \\ + 1 \text{ chevauchement} \\ \hline 21,73\text{cm} \\ A = bh \\ = 21,73\text{cm}(8,8\text{cm}) \\ = 191,224\text{cm}^2 \end{array}$$

7. Which container of ketchup is a better buy?
(Use $\pi = 3.14$)



8. Twelve identical cylindrical pop cans are placed in a box. If sand fills the space between the pop cans and the sides of the box, what volume of sand is needed? (Use $\pi = 3.14$)

