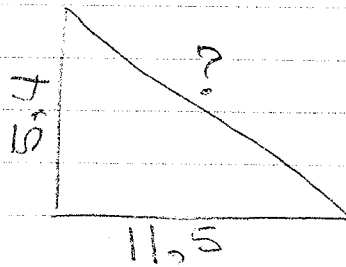


CORRIGÉ !

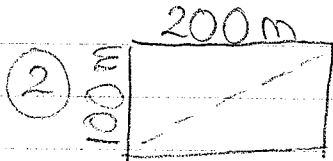
LA VIE EST ENCORE BELLE :-)

- ① 11,5 km (a)
5,4 km (b)



$$\begin{aligned} a^2 + b^2 &= c^2 \\ 5.4^2 + 11.5^2 &= c^2 \\ 29.16 + 132.25 &= c^2 \\ 161.41 &= c^2 \\ \sqrt{161.41} &= c \\ \boxed{12.70 \text{ km} = c} \end{aligned}$$

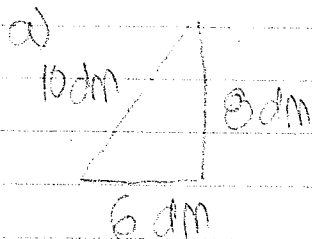
★ la distance la plus courte est 12.70 km



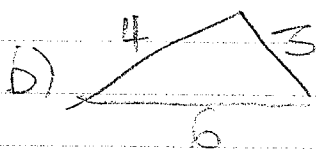
$$\begin{aligned} a^2 + b^2 &= c^2 \\ 100^2 + 200^2 &= c^2 \\ 10000 + 40000 &= c^2 \\ 50000 &= c^2 \\ \sqrt{50000} &= c \\ \boxed{223.61 \text{ m} = c} \end{aligned}$$

★ la longueur de ses diagonales est 223.61 m

③ la theoreme pythagore nous dise que l'aire de A + l'aire de B nous donne l'aire de C :

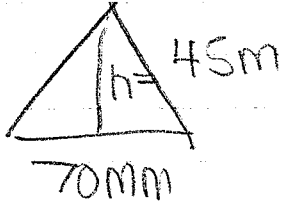


$$\begin{aligned} a^2 + b^2 &= c^2 \\ 6^2 + 8^2 &= 10^2 \\ 36 + 64 &= 100 \checkmark \end{aligned} \quad \leftarrow \text{OUI}$$



$$\begin{aligned} a^2 + b^2 &= c^2 \\ 6^2 + 3^2 &= 4^2 \\ 36 + 9 &= 16 \text{ X} \end{aligned} \quad \leftarrow \text{NON}$$

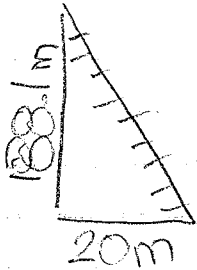
④



$$\begin{aligned} \textcircled{1} \quad & 70 \div 2 = 35 \text{ mm} \\ \textcircled{2} \quad & a^2 + b^2 = c^2 \\ & 45^2 + 70^2 = c^2 \\ & 2025 + 4900 = c^2 \\ & 6925 = c^2 \\ & \sqrt{6925} = c \\ & \boxed{83,22 \text{ mm} = c} \end{aligned}$$

★ l'hypoteneuse est 83,22 mm.

⑤



$$\begin{aligned} & a^2 + b^2 = c^2 \\ & 20^2 + 180^2 = c^2 \\ & 400 + 35381,61 = c^2 \\ & 35781,61 = c^2 \\ & \sqrt{35781,61} = c \\ & \boxed{189,16 \text{ m} = c} \end{aligned}$$

★ l'échelle est 189,16 m

⑥ $198 \times \frac{4}{9} = 88$ filles

$\frac{1}{11} \times 198 = 18$ avec lunettes

$\frac{2}{9} \times 198 = 44$ blonds

$\frac{1}{3} \times 198 = 66$ noirs

$\frac{1}{22} \times 198 = 9$ roux

$\frac{3}{11} \times 198 = 54$ brun

} cheveux

⑦ $\frac{1}{8} \times \frac{4}{9} \times 198 = 11$ filles avec lunettes.

800
↓

- ⑥ a) 88 filles
 b) 18 lunettes
 c) $44 + 66 = 110$ blonds et noirs
 d) $198 - 44 - 66 - 9 - 54 = 25$ teignent leur cheveux
 e) $198 - 88 = 110$ garçons

$$110 / 198 \times 100 = 56\% \text{ sont des garçons}$$

$$f) 9 / 198 \times 100 = 4,5\% \text{ ont des cheveux rock}$$

$$⑦ \frac{75}{100} \times \frac{1}{2} \times \frac{3}{5} \times 560 = \frac{126000}{1000} = 126$$

★ 126 élèves sont de familles exogames.

$$⑧^a) 27,08 + 3,75 - 4 \times 8,2 \div 23 + 17$$

$$27,08 + 3,75 - 32,8 \div 23 + 17$$

$$27,08 + 3,75 - 1,43 + 17$$

$$\boxed{46,4}$$

$$b) 75\% + [4,75 \times (2-6)] \div 1,5$$

$$75\% + [4,75 \times -4] \div 1,5$$

$$0,75 + -19 \div 1,5$$

$$0,75 + (-12,67) = \boxed{-11,92}$$

9 a) $39,95 \$ + 25,00 \times n$

$25n + 39,95$

b) $670n$

c)

λ	y
0	90
1	150
2	210
3	270
4	330
5	390

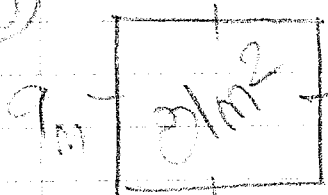
$60x + 90$

d)

λ	y
0	2
1	4
2	6
3	8
4	10
5	12

$2x + 2$

10



1) $\sqrt{81} = 9m$

2) $9 \times 4 = 36m$

3) $36 \div 8 = 4,5$

M. Mathieer

30 - REDUCED

110\$ avant tax

R R R R R
1 2 3 4 5

4) $4 \times 27,50 = 110 \$$

Gratuit

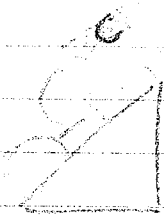
$$\textcircled{11} \quad \frac{2}{7} \text{ or} + \frac{1}{4} \text{ r} + \frac{1}{2} \text{ bl} = \frac{2 \times 4}{7 \times 4} + \frac{1 \times 7}{4 \times 7} + \frac{1 \times 14}{2 \times 14}$$

★ Non, elle aura besoin = $\frac{20}{28} = 1 \frac{1}{28}$ tasse
 $\frac{1}{14}$ de tasse.

$$1 \frac{2}{7} - 1 \frac{1}{28}$$

$$\frac{9}{7} - \frac{29}{28} = \frac{36 - 29}{28} = \frac{7}{28} = \frac{1}{4}$$

⑫



① $C = \text{DNT}$
 $= 50 \times 3 - 14$
 $= 157 \text{ cm}$

② $3 \times 157 = 471 \text{ cm}$

③ $a^2 + b^2 = c^2$

★ la rampe est 462.32 cm de long.

$$90^2 + b^2 = 471^2$$

$$8100 + b^2 = 221811$$

$$b^2 = 213711$$

$$b = \sqrt{213711}$$

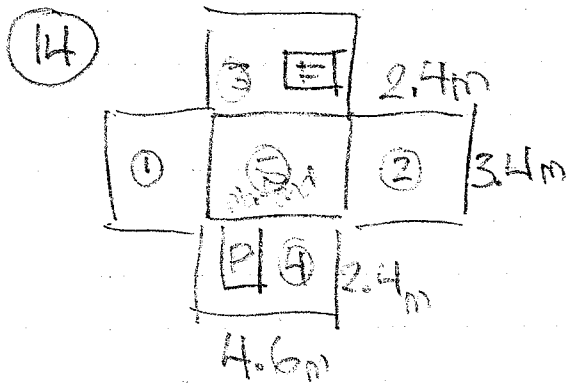
$$b = 462.32 \text{ cm}$$

⑬ $2 \frac{1}{3} \text{ L/h} \times (18 \div 2)$

$$\frac{2 \frac{1}{3} \text{ L/h} \times 9$$

$$\frac{7}{3} \times 9 = \frac{27}{3} = \boxed{9 \text{ litres}}$$

Nicholas a dilué



$$\left. \begin{array}{l} \textcircled{1} \quad 8,16 \text{ m}^2 \\ \textcircled{2} \quad 8,16 \text{ m}^2 \\ \textcircled{3} \quad 11,04 - 1 = 10,04 \text{ m}^2 \\ \textcircled{4} \quad 11,04 - 2 = 9,04 \text{ m}^2 \\ \textcircled{5} \quad 15,64 \text{ m}^2 \end{array} \right\} 35,4$$

$$\textcircled{F} = 1 \text{ m}^2$$

$$\textcircled{P} = 12 = 2 \text{ m}^2$$

$$\text{a) } 35,4 \div 10 = 3,54 \text{ ou } \textcircled{4} \text{ rouleaux}$$

$$\text{b) } 15,64 + 2 \cdot \frac{17,64 \text{ m}^2}{\text{a) peintures}}$$

$$\textcircled{15} \text{ a) } \lambda + 2 - 7\lambda + 4 + 2(\lambda - 1)$$

$$3 + 2 = 2 + 4 + 4$$

$$\boxed{2}$$

$$\text{b) } \left[\frac{3x}{2} \right] + 6x + 25$$

$$\frac{9}{2} + \frac{18x}{2} + 25 =$$

$$\frac{9 + 36 + 50}{2} = \boxed{47 \frac{1}{2}} \text{ ou } \boxed{47,5}$$

$$\text{c) } \frac{3x + 2}{2x + 5}$$

$$\frac{9 + 2}{6 + 5} = \frac{11}{11} = \boxed{1}$$

16

4m

50m

5m

$$\frac{4 \times 15}{5 \times 15} = \frac{60}{?}$$

$$= \frac{60}{75}$$

donc l'ombre sera 75m

17

x	y
0	500
1	1250
2	2000
3	2750
4	3500
5	4250

750

750

750

750

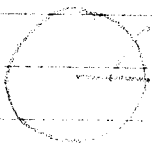
$$750n + 500$$

donc le coût pour 15

$$750 \times 15 + 500$$

$$11750 \$$$

18



15m

$$\begin{aligned} \textcircled{1} A_{\text{cyl}} &= 2\pi r^2 \\ &= 3.14 \times 15^2 \\ &= 706.5 \text{ m}^2 = 70650 \text{ cm}^2 \end{aligned}$$

★ ce va leur

coûte

$$\begin{aligned} \textcircled{2} A_{\text{cyl}} &= 20 \times 20 \\ &= 400 \text{ cm}^2 \times 12 = 4800 \text{ cm}^2 \end{aligned}$$

554.70 \$

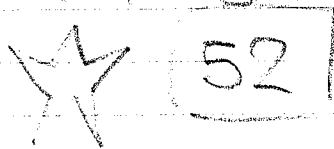
$$\textcircled{3} 70650 \div 4800 = 14.72 \text{ ou } 15$$

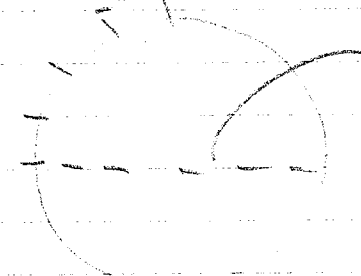
$$\textcircled{4} 15 \times 36.98 = 554.7 \$$$

$$\textcircled{19} \quad -3y + (12x + 3) + (7 + y)$$

$$-3(-3) + (12 \times 6 + 3) + (7 - 3)$$

$$9 + 39 + 4$$


 Le périmètre est
 52 m.

$$\textcircled{20} \quad d = 12.74 \text{ m}$$


$$\textcircled{1} \quad c = d \times \pi$$

$$= 12.74 \times 3.14$$

$$= 40 \text{ m}$$

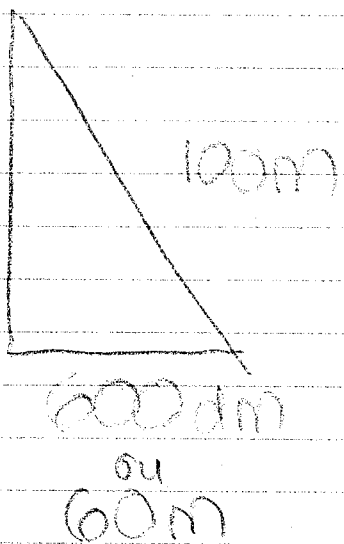
$$\Rightarrow 40 \div 2.5 = 16 \text{ bancs}$$

$$\textcircled{3} \quad 16 \div 2 = 8 \text{ bancs remplis}$$

$$\textcircled{4} \quad 3 \times 3 = \boxed{24 \text{ personnes}}$$

$$\textcircled{21} \quad \frac{\text{ANDES}}{\text{ANDES}} \times 24 = \textcircled{9} \text{ magasins ne vendent pas de vêtements}$$

22



$$a^2 + b^2 = c^2$$

$$60^2 + b^2 = 100^2$$

$$3600 + b^2 = 10000$$

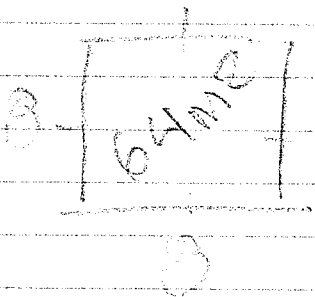
$$b^2 = 6400$$

$$b = \sqrt{6400}$$

$$b = 80m$$

le cerf volant se trouve à 80m du sol.

23



c) 3m

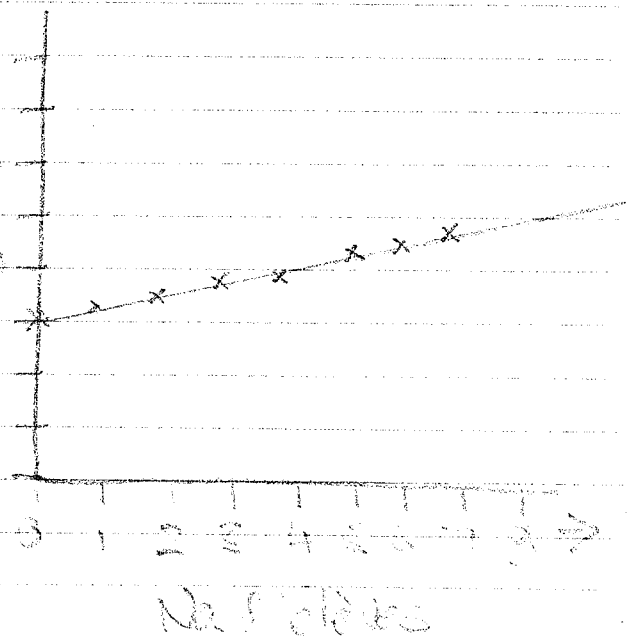
24

a) No.	coût \$
0	30.00
1	32.25
2	34.50
3	36.75
4	39.00
5	41.25
6	43.50
7	45.75

$$2.25n + 30$$

coût de la sortie

b) coût total \$



$$\textcircled{33} \quad \begin{array}{l} \text{a) } -2x - 6 = x - 10 \\ -3x - 6 = -10 \\ -3x = -4 \\ \frac{-3x}{-3} = \frac{-4}{-3} \\ \boxed{x = 1.3} \end{array}$$

$$\text{b) } \begin{array}{l} 4x + 7 = 43 \\ 4x = 36 \\ \frac{4x}{4} = \frac{36}{4} \\ \boxed{x = 9} \end{array}$$

$$\text{c) } \begin{array}{l} -5x = 20 \\ \frac{-5x}{-5} = \frac{20}{-5} \\ \boxed{x = 4} \end{array}$$

$$\text{d) } \begin{array}{l} x - 8 = -4 \\ \boxed{x = 4} \end{array}$$

$$\text{e) } \begin{array}{l} -5(x - 9) = 55 \\ -5x + 45 = 55 \\ -5x = 10 \\ \frac{-5x}{-5} = \frac{10}{-5} \\ \boxed{x = -2} \end{array}$$

$$\text{f) } \begin{array}{l} 4(x - 5) = -28 \\ 4x - 20 = -28 \\ 4x = -8 \\ \frac{4x}{4} = \frac{-8}{4} \\ \boxed{x = -2} \end{array}$$

$$\text{g) } \begin{array}{l} x + 17 = 11 \\ \boxed{x = -6} \end{array}$$

$$\text{h) } \begin{array}{l} 4(x + 3) = 20 \\ 4x + 12 = 20 \\ 4x = 8 \\ \frac{4x}{4} = \frac{8}{4} \\ \boxed{x = 2} \end{array}$$

$$\text{i) } \begin{array}{l} 4(x + 4) = -20 \\ 4x + 16 = -20 \\ 4x = -36 \\ \frac{4x}{4} = \frac{-36}{4} \\ \boxed{x = 9} \end{array}$$

$$\text{j) } \begin{array}{l} -4x + 10 = -4.8 \\ -4x = -14.8 \\ \frac{-4x}{-4} = \frac{-14.8}{-4} \\ \boxed{x = 3.7} \end{array}$$

$$k) \begin{array}{r} +5 \quad +5 \\ x - 5 = -9 \\ \hline x = -4 \end{array}$$

$$l) \begin{array}{r} -3 \quad -3 \\ x + 3 = 8 \\ \hline x = 5 \end{array}$$

$$m) \begin{array}{r} 5(x+7) = 2x+41 \\ 5x+35 = 2x+41 \\ 3x+35 = 41 \\ \hline 3x = 6 \\ \hline x = 2 \end{array}$$

$$n) \begin{array}{r} 2(x+10) = 6 \\ 2x+20 = 6 \\ 2x = -14 \\ \hline x = -7 \end{array}$$

$$o) \begin{array}{r} -1 \quad -1 \\ -x+1 = 6 \\ +x = 5 \\ \hline x = -5 \end{array}$$

$$p) \begin{array}{r} -(x-6) = -1 \\ -x+6 = -1 \\ -x = -7 \\ \hline x = 7 \end{array}$$

$$q) \begin{array}{r} -10 \quad -10 \\ 2x+10 = -6 \\ 2x = -16 \\ \hline x = -8 \end{array}$$

$$r) \begin{array}{r} -x \quad -x \\ 2x-8 = x-2 \\ x-8 = -2 \\ \hline x = 6 \end{array}$$

$$s) \begin{array}{r} -4(x-2) = -4 \\ -4x+8 = -4 \\ -4x = -12 \\ \hline x = 3 \end{array}$$

$$t) \begin{array}{r} +5 \quad +5 \\ \frac{x}{2} - 5 = 2.5 \\ \frac{x}{2} = 7.5 \\ \hline x = 15 \end{array}$$

