Exercícios

01- a) Para cobrir $36 m^2$ com 400 peças, serão necessários peças de: $\frac{36}{400} = 0,09 m^2$.

b) $A\square = l \cdot l$

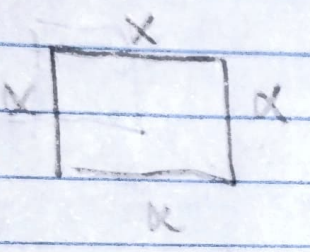
$0,09 = l^2$

$l = \sqrt{0,09} = 0,3$

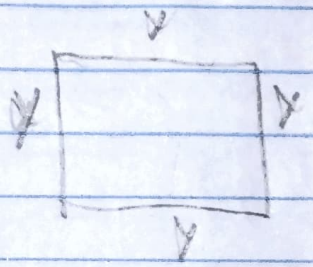
$P\square = 0,3 \cdot 4$

$P\square = 1,2 m$

02-



$A = x^2$



$2A = y^2$

$y^2 = 2x^2$

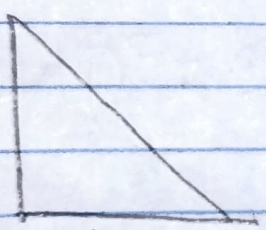
$y = \sqrt{2x^2}$

$y = x\sqrt{2}$

(D)

03-

$A\Delta = 15$

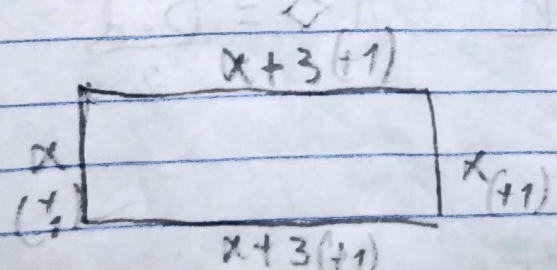


$A\Delta = \frac{b \cdot h}{2} \rightarrow 15 = \frac{10 \cdot h}{2} \rightarrow h = \frac{30}{10}$

$h = 3$

(D)

04-



$A = (x+3) \cdot x$

$A = x^2 + 3x$

$A + 16 = (x+4) \cdot (x+1)$

$A + 16 = x^2 + x + 4x + 4$

$x^2 + 3x + 16 = x^2 + 5x + 4$

$16 - 4 = x^2 + 5x - 3x - x^2$

$12 = 2x$

$x = 6$

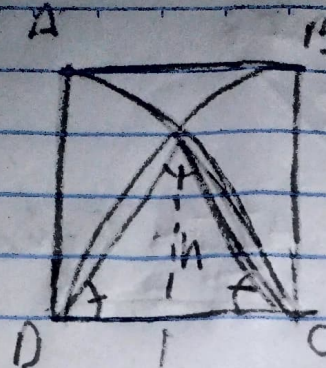
$A = (x+3) \cdot x$

$A = (6+3) \cdot 6$

$A = 54$

$A_{ampliada} = 54 + 16 = 70 m^2$

05-



$h = \frac{l\sqrt{3}}{2}$ $\quad A = \frac{b \cdot h}{2}$

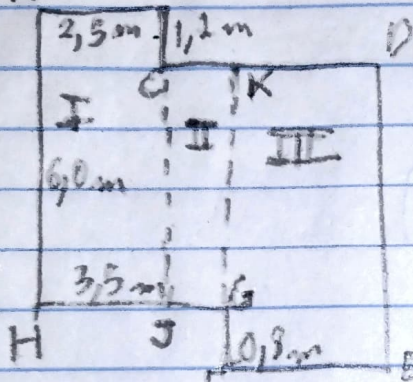
$h = \frac{2\sqrt{3}}{2}$ $\quad A = \frac{2\sqrt{3}}{2}$

$h = \sqrt{3}$ $\quad A = \sqrt{3}$

(B)

∴ 3 ângulos iguais, equilátero

06-



Retangulos I, II, III

$\overline{CJ} = 6,0 - 1,2 = 4,8m$

$\overline{CK} = 3,5 - 2,5 = 1\ m$

$\overline{DE} = 4,8 + 0,8 = 5,6\ m$

(E)

$A_I = 1 \cdot 4,8 = 4,8\ m$

$A_{II} = 6 \cdot 2,5 = 15\ m$ + $= 42,2\ m^2$

$A_{III} = 5,6 \cdot 4 = 22,4$

07- $A = \frac{(B+b) \cdot h}{2}$

$36 = \frac{(2x+x) \cdot h}{2}$

$h = \frac{72}{3x} = \frac{24\ cm}{x}$

$A = b \cdot h$

$A = x \cdot \frac{24}{x}$

$A = \frac{24x}{x}$

$A = 24\ cm^2$

(E)

08= $A = \frac{D \cdot d}{2}$

$A = \frac{6 \cdot 2}{2}$

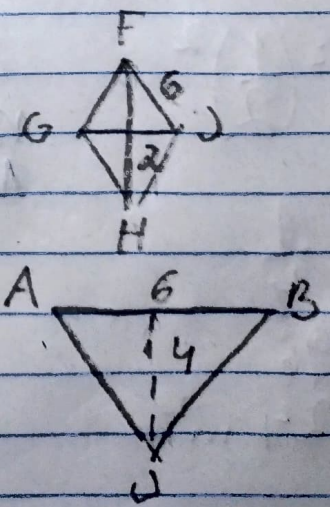
$A = 6$

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

$A = \frac{6 \cdot 4}{2}$

$A = 12$

(D)



$\frac{EGHJ}{ABJ} = \frac{6}{12} = \frac{1}{2}$

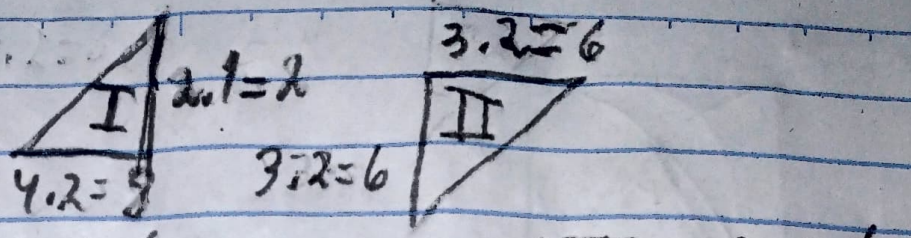
09- $A = b.h$

$48 = 4x \cdot 3x$

$48 = 12x^2$

$x = \sqrt{4}$

$x = 2$



$A_I = 8.2/2$

$A_I = 8$

$A_{II} = 6.6/2$

$A_{II} = 18$

$A_{Hachurada} = 48 - (18+8)$

$A_{Hachurada} = 22$

(E)

10- $\left(\frac{AD}{AB}\right)^2 = \frac{1}{2}$ $\quad \overline{AB} = 8$

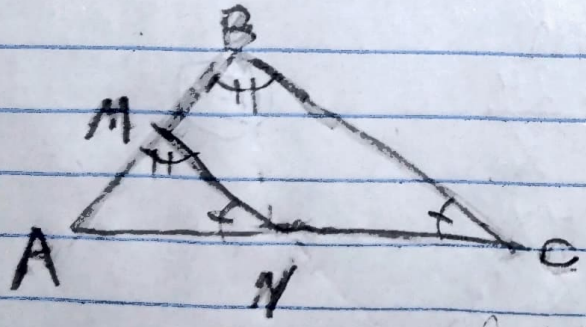
$\frac{AD^2}{64} = \frac{1}{2}$

(A)

$2AD^2 = 64$

$AD = \sqrt{32} = 4\sqrt{2}$

11-



$A = 96\,m^2$

$BC \parallel MN$

ABC e AMN não semelhantes

$AN = \frac{AC}{2}$

$\frac{AMN}{ABC} = \left(\frac{1}{2}\right)^2$

$ABC - AMN = MNBC$

$MNBC = 96 - 24$

$MNBC = 72\,m^2$

$\frac{AC}{2} = AC = \frac{1}{2}$

$\frac{AC}{2AC}$

$\frac{x}{96} = \frac{1}{4}$

$4x = 96$

$x = 24\,m^2$