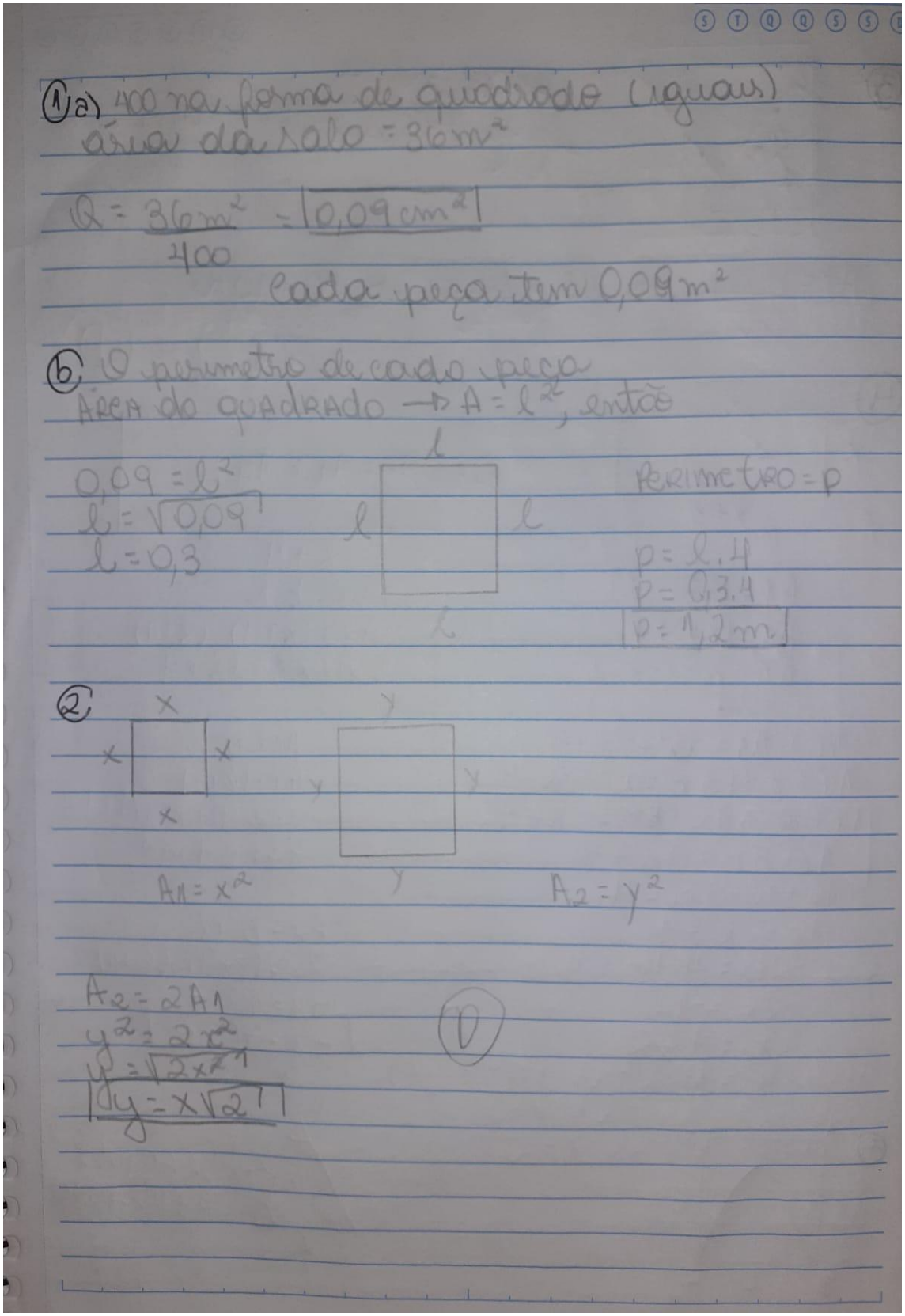
Evelyn Santos de Santana

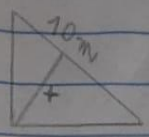
CTII348

Área de Quadriláteros e Triângulos



S T Q Q S S D

③



$A_t = 15\,m^2$

b = hipotenusa = 10 m

h = x

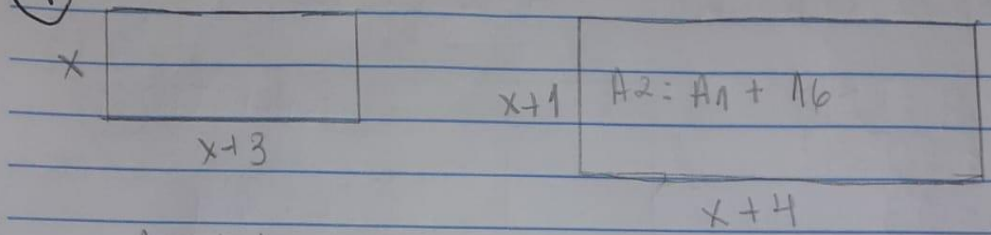
$A_t = \frac{b.h}{2} \Rightarrow 15 = \frac{10.h}{2} \Rightarrow 30 = 10h$

$h = 30/10$

$h = 3\,m$

D

④



$A_1 = b.h$

$A_1 = (x+3).x$

$A_1 = x^2 + 3x$

$A_2 = b.h$

$A_2 = (x+4).(x+1)$

$A_2 = x^2 + 5x + 4$

$16 + A_1 = x^2 + 5x + 4$

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

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

$16 + 3x = 5x + 4$

$16 + 3x - 5x = 4$

$16 - 2x = 4$

$-2x = 4 - 16$

$-2x = -12$

$x = -12/-2$

$x = 6$

$A_1 = b.h$

$A_1 = (6+3).6$

$A_1 = 9 \cdot 6$

$A_1 = 54\,m^2$

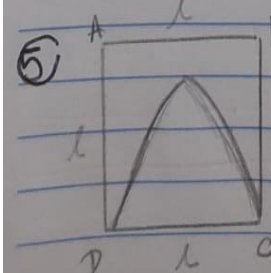
$A_2 = b.h$

$A_2 = (6+4).(6+1)$

$A_2 = 10.7$

$A_2 = 70\,m^2$

⑤



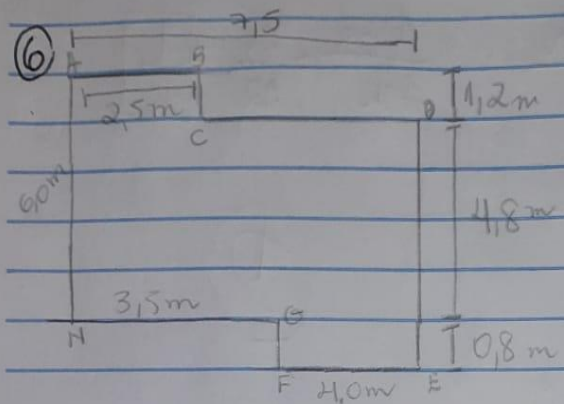
$l = 2$

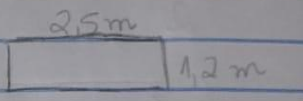
2 → triangulo equilatero

$h = \frac{\ell\sqrt{3}}{2} \Rightarrow \frac{2\sqrt{3}}{2} \Rightarrow h = \sqrt{3}$

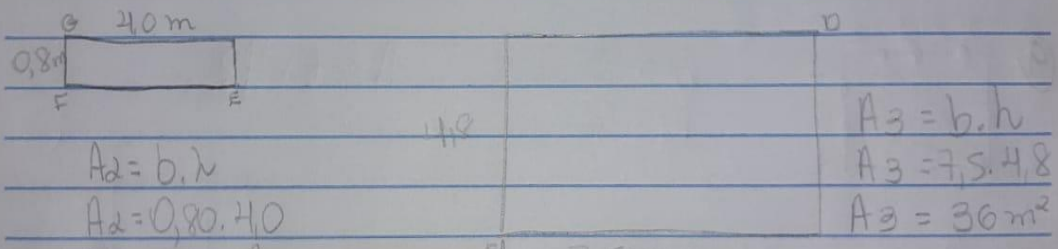
$A_t = \frac{b.h}{2} \Rightarrow \frac{2.\sqrt{3}}{2} \Rightarrow A_t = \sqrt{3}$ (B)

(6)





$A_1 = b.h$
$A_1 = 2,5.1,2$
$A_1 = 3\ m^2$

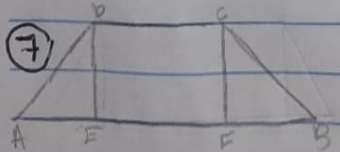


$A_2 = b.h$
$A_2 = 0,80.4,0$
$A_2 = 3,2\ m^2$

$A_3 = b.h$
$A_3 = 7,5.4,8$
$A_3 = 36\ m^2$

$A_{total} = A_1 + A_2 + A_3$
$A_{total} = 3 + 3,2 + 36$
$A_{total} = 42,2\ m^2$ (E)

(7)



$A_{trap} = 36\ m^2$ $\quad AB/2 = CD$
$AB = 2CD$ $\quad EF = CD$

$A_{trap} = \frac{(B+b).h}{2}$

$36 = \frac{(2CD+CD).h}{2}$

$72 = 3CD.h$

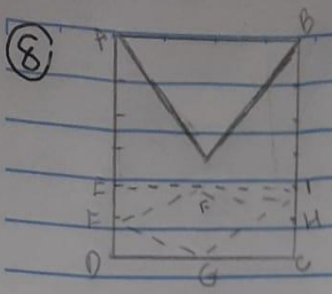
$72/3 = CD.h$
$24 = CD.h$

Área do Retângulo é 24 cm² (F)

data • •

S T Q Q S S D

(8)



Lado = 6cm

DIVIDIDO EM 6 PARTES, ENTÃO CADA PARTE TEM 1cm

$A_{LOS} = \frac{D \cdot d}{2}$ $A_{TR} = \frac{b \cdot h}{2}$ $\frac{A_{LOS}}{A_{TR}} = \frac{6}{12} = \boxed{\frac{1}{2}}$

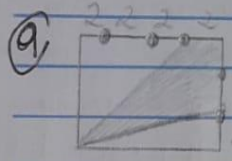
$A_{LOS} = \frac{6 \cdot 2}{2}$ $A_{TR} = \frac{6 \cdot 4}{2}$

(D)

$A_{LOS} = 6cm^2$ $A_{TR} = 6 \cdot 2$

$A_{TR} = 12cm^2$

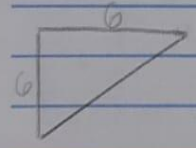
(9)



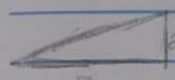
b = 8

h = 6

$A_{ret} = 48$



$A_{tgM} = \frac{b \cdot h}{2} = \frac{6 \cdot 6}{2} = \frac{36}{2} \Rightarrow A_{tgM} = 18$



$A_{tgm} = \frac{b \cdot h}{2} = \frac{2 \cdot 8}{2} \Rightarrow A_{tgm} = 8$

(F)

$A_{REASOB} = A_{ret} - (A_{tgM} + A_{tgm})$

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

$A_{REASOB} = 48 - 26$

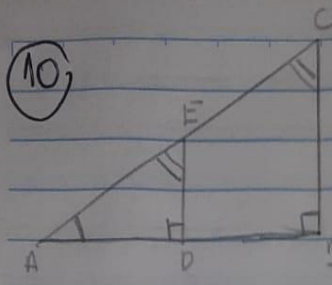
$\boxed{A_{REA\,SOB} = 22}$

(I)

data • •

S T Q Q S S D

10)



$\triangle ADE \sim \triangle ABC$

$\left(\frac{AD}{AB}\right)^2 = \frac{A_{ADE}}{A_{ABC}}$

$\left(\frac{AD}{8}\right)^2 = \frac{\frac{1}{2}A_{ABC}}{A_{ABC}}$

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

$2AD^2 = 64$

$AD^2 = 32$

$AD = \sqrt{32}$

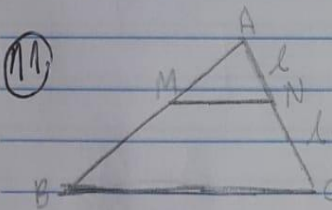
$AD = \sqrt{2^2 \cdot 2^2 \cdot 2}$

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

32	2
16	2
8	2
4	2
2	2

(A)

11)



$A_{ABC} = 96m^2$

$K = \frac{l}{2l}$

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

$K^2 = \frac{1}{4}$

$A_{BMNC} = A_{ABC} - A_{AMN}$

$A_{BMNC} = 96 - A_{AMN}$

$\frac{A_{AMN}}{96} = \frac{1}{4}$

$4 \cdot A_{AMN} = 96$

$A_{AMN} = \frac{96}{4}$

$A_{AMN} = 24m^2$

$A_{BMNC} = A_{ABC} - A_{AMN}$

$A_{BMNC} = 96 - 24$

$\boxed{A_{BMNC} = 72m^2}$