Tarefa Básica
Áreas de quadriláteros e triângulos

01. a) $400 \cdot x = 36\ m^2$

$x = 36/400$

$\boxed{x = 0,09\ m^2}$

b) $\ell = \sqrt{x}$ $\quad P = 4\ell$

$\ell = \sqrt{0,09}$ $\quad P = 4 \cdot 0,3$

$\ell = 0,3$ $\quad \boxed{P = 1,2\ m}$

02. $y^2 = 2x^2 \rightarrow y = \sqrt{2x^2} \rightarrow \boxed{y = x\sqrt{2}}$ (D)

03. $S = \frac{b \cdot h}{2} \rightarrow 15 = \frac{10 \cdot h}{2} \rightarrow h = \frac{30}{10} \rightarrow \boxed{h = 3}$ (D)

04.

$S = x \cdot (x+3) = x^2 + 3x$

$S + 16 = (x+1) \cdot (x+4) = x^2 + 4x + x + 4 = x^2 + 5x + 4$

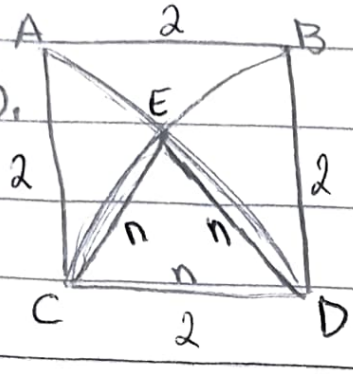
$x^2 + 5x + 12 = S$

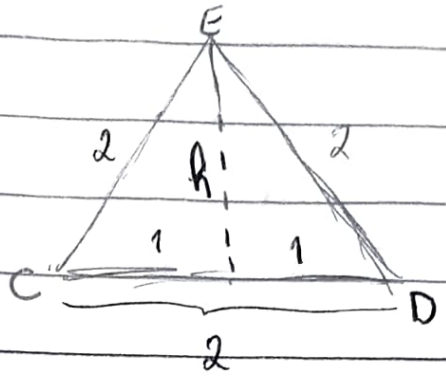
$-\ x^2 + 3x = S$

$2x - 12 = 0 \rightarrow x = 12/2 = 6$

$S'' = (6+1)\cdot[(6+3)+1] = 7\cdot 10 = \boxed{70\ m^2}$

05.





$h^2 = 2^2 - 1^2$

$h^2 = 4 - 1$

$h = \sqrt{3}$

$S = \frac{b\cdot h}{2} = \frac{2\sqrt{3}}{2} \therefore \boxed{S = \sqrt{3}}$

06. $S_1 = 2{,}5\cdot 1{,}2 = 3\ m^2$

$S_2 = (6-1{,}2)\cdot 3{,}5 = 16{,}8\ m^2$

$S_3 = (4{,}8+0{,}8)\cdot 4 = 22{,}4\ m^2$

$S_{total} = S_1 + S_2 + S_3 = 3 + 16{,}8 + 22{,}4 = \boxed{42{,}2\ m^2}$ (E)

07. $36 = (2\overline{CD} + \overline{CD})\cdot h / 2$

$72 = 3\overline{CD}\cdot h$

$\boxed{\overline{CD}\cdot h = 24\ cm^2}$ (E)

08. $S1 = 2 \cdot 6 / 2 = 6\ cm^2$ $k = \frac{6}{12} = \boxed{\frac{1}{2}}$ (D)

$S2 = 6 \cdot 4 / 2 = 12\ cm^2$

09. $48 = 4x \cdot 3x = 12x^2$ $S1 = \frac{2 \cdot 6}{2} = 6$

$x^2 = 48/12 = 4$

$x = \sqrt{4} = 2$ $S2 = \frac{4 \cdot 8}{2} = 16$

$S_{total} = S1 + S2 = 6 + 16 = \boxed{22}$ (e)

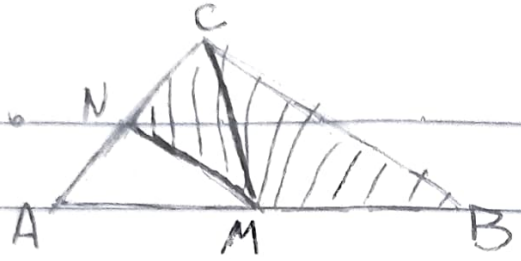
10. $S_{ABC} = 8 \cdot 6 / 2 = 24\ u^2$

$S_{ADE} = 24/2 = 12\ u^2$

$\frac{A}{A'} = k^2 = \left(\frac{a}{a'}\right)^2$ $\frac{12}{24} = \left(\frac{AD}{8}\right)^2 \rightarrow \frac{1}{2} = \frac{AD^2}{64}$

$AD^2 = \frac{64}{2} = 32 \rightarrow AD = \sqrt{32} = \boxed{4\sqrt{2}}$ (A)

11.



$S_{ABC} = 96\ m^2$

$S_{BCM} = 96 : 2 = 48\ m^2$

$S_{AMC} = 96 : 2 = 48\ m^2$

$S_{CMN} = 48 : 2 = 24\ m^2$

$S_{BMNC} = 48 + 24$

$= 72\ m^2$