Tarefa Básica - Triângulo retângulo

1) $\sqrt{3}^2 + \sqrt{4}^2 = x^2$

$3 + 4 = 7$ $\qquad \sqrt{7}$

(B)

2)

$10^2 = 6^2 + x^2$

$100 - 36 = x^2$

$x^2 = 64$

$x = 8$ $\qquad 8m$

3)

$1^2 + 2^2 = AC^2$

$5 = AC^2$ $\qquad AC = \sqrt{5}$

$\sqrt{5}^2 + CD^2 = 3^2$

$5 + CD^2 = 9$

$CD^2 = 9 - 5$

$CD^2 = 4$

$CD = 2$ (B)

4) $a^2 + a^2 = 2a^2 \Rightarrow 2a$

$a^2 + 2a^2 = 3a^2 \Rightarrow 3a$

$a^2 + 3a^2 = 4a^2 \Rightarrow 2a$ (B)

5) $2^2 + c^2 = 6^2$

$4 + c^2 = 36$

$c^2 = 32$

$c = \sqrt{32}$

$c = 2\sqrt{2}$

$2\sqrt{2} \cdot 2 = 4\sqrt{2}$ (C)

32 | 2
16 | 2
8 | 2
4 | 2
2 | 2
1

6) $AC = x = 10$

$10^2 = y^2 + (2y)^2$

$100 = y^2 + 4y^2$

$5y^2 = 100 \Rightarrow y^2 = \sqrt{20}$

$y = 2\sqrt{5}$ (A)

20 | 2
10 | 2
5 | 5
1

7) $5 \cdot 16 = 80cm$ $0,8m$

$2 - 0,5 =$ $1,2m \Rightarrow$ distância

$5 \cdot 10 = 50cm$ $0,5m$

$x^2 = 1,2^2 + 0,5^2$

$x^2 = 1,44 + 0,25$

$x = \sqrt{1,69}$

$x = 1,3$ (B)

8) $4^2 + AB^2 = 8^2$

$16 + AB^2 = 64$

$AB^2 = 48$

$AB = \sqrt{48}$

$(x+4)^2 + \sqrt{48}^2 = 13^2$

$x^2 + 8x + 16 + 48 = 169$

$x^2 + 8x - 105 = 0$

$7 + (-15) = b/a \qquad 8/1$

$7 \cdot (-15) \; c/a \quad -105$

(7) (15)

9) $p = \frac{(13+14+15)}{2} = 42/2 = 21$

$A = \sqrt{21(21-13)(21-14)(21-15)}$

$A = \sqrt{21 \cdot 9 \cdot 7 \cdot 6}$

$A = \sqrt{7056}$

$A = 84$

$84 = \frac{14 \cdot h}{2}$

$7h = 84$

$h = 12$

10) $x^2 = (n+n')^2 - (n-n')^2$

$x^2 = (n^2 + 2nn' + n'^2) - (n^2 - 2nn' + n'^2)$

$x^2 = 4nn'$

$x = 2\sqrt{nn'}$

11) $AC^2 = 40^2 + 30^2$

$AC^2 = 1600 + 900$

$AC^2 = 2500$

$AC = 50$

$20^2 = 50 \cdot CE$

$50 \cdot CE = 400$

$CE = 400 / 50$

$CE = 8$

(c)