Nome: Gustavo Murilo Cavalcante Carvalho
Turma: CTII 348

1- $x^2 = \sqrt{3}^2 + \sqrt{4}^2 = 3+4=7$

$x = \sqrt{7}$ (B)

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

$x^2 = 100 - 36 = 64$

$x = \sqrt{64}$

$x = 8$ metros

3- $CA^2 = 2^2 + 1^2 = 5$

$CA = \sqrt{5}$

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

$9 - 5 = CD^2 = 4$

$CD = \sqrt{4} = 2$ (B)

4- $Z^2 = a^2 + a^2 = 2a^2$

$Z = \sqrt{2a^2} = a\sqrt{2}$

$y^2 = a^2 + (a\sqrt{2})^2 = a^2 + 2a^2 = 3a^2$

$y = a\sqrt{3}$

$x^2 = a^2 + (a\sqrt{3})^2$

$x^2 = 4a^2$

$\sqrt{x^2} = \sqrt{4a^2}$

$x = 2a$ (B)

5- $6^2 = x^2 + 2^2$

$x^2 = 36 - 4$

$x = \sqrt{32} = \sqrt{16 \cdot 2} = 4\sqrt{2}$

Area $= b \cdot h / 2$

Area $= 2 \cdot 4\sqrt{2} / 2$

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

6- $AC^2 = 6^2 + 8^2 = 36 + 64$

$AC = \sqrt{100} = 10$

$10^2 = 2x^2 + x^2 = 5x^2$

$x^2 = 100/5 = 20$

$x = \sqrt{20} = \sqrt{4 \cdot 5} = 2\sqrt{5}$ (A)

7- $10 \cdot 5 = 50 = 0,5$ m

$16 \cdot 5 = 80 = 0,8$ m

$2 - 0,8 = 1,2$ m

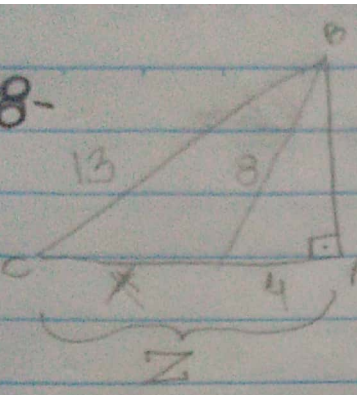
$x^2 = 1,2^2 + 0,5^2$

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

$x = \sqrt{1,69}$

$x = 1,3$ m (B)

8-



$8^2 = y^2 + 4^2$

$y^2 = 64 - 16 = 48$

$y = \sqrt{48} = 2\sqrt{12}$

$13^2 = (2\sqrt{12})^2 + Z^2$

$169 = 48 + Z^2$

$Z = \sqrt{121} = 11$

$X = 11 - 4 = 7$ (D)

9- $p = 13+14+15 = 42$

$p = 21$

$84 = 14 \cdot h/2 = 7 \cdot h$

$84/7 = 12 = h$

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

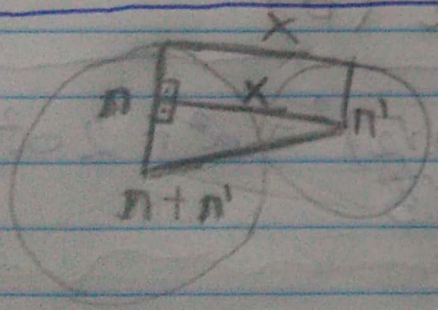
$A = \sqrt{21 \cdot 6 \cdot 7 \cdot 8}$

$A = \sqrt{21 \cdot 3 \cdot 7 \cdot 2 \cdot 2 \cdot 2 \cdot 2}$

$A = 4\sqrt{21 \cdot 21}$

$A = 4 \cdot 21 = 84$

10-



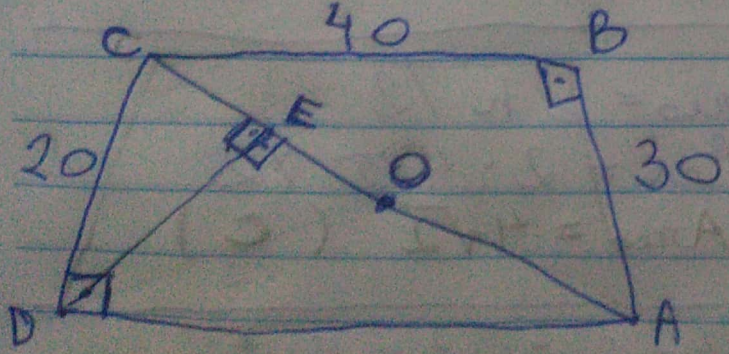
$x^2 + (n-n')^2 = (n+n')^2$

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

$x^2 = 4nn'$

$x = \sqrt{4nn'} = 2\sqrt{nn'}$

11-



$CA^2 = 40^2 + 30^2 = 2500$

$CA = \sqrt{2500} = 50$

$C\hat{E}D = 180 - 90 = 90°$

$\triangle CED \cong \triangle CDA$

$\frac{CD}{CA} = \frac{CE}{CD} \rightarrow \frac{20}{50} = \frac{CE}{20} \rightarrow CE = \frac{20^2}{50} = \frac{400}{50} = 8$