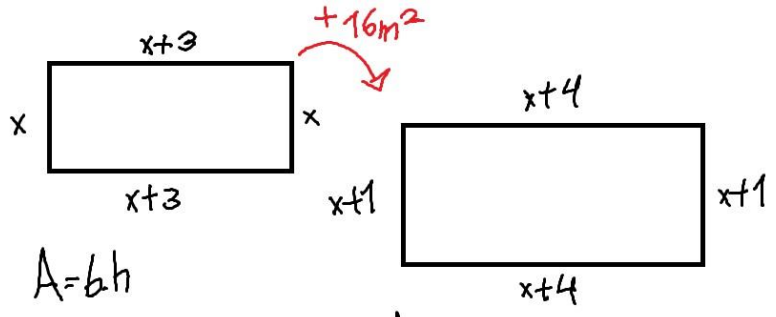
Ex 04.



$A = b.h$

$(x+3).x$

$A = x^2+3x\ m^2$

$A = b.h$

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

$x^2+x+4x+4$

$A = x^2+5x+4\ m^2$

$A = x^2+5x+4\ m^2$

$6^2+5.6+4\ m^2$

$36+30+4\ m$

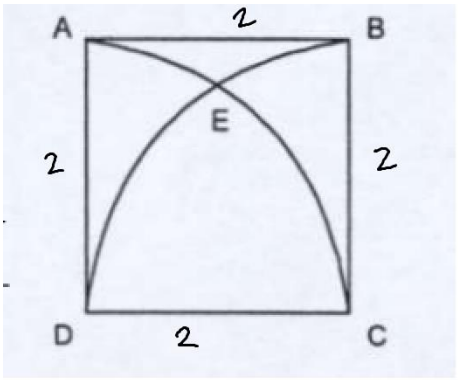
Área ampliada $= 70\ m^2$

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

$x^2-x^2+3x-5x+16\ m^2-4\ m^2 = 0$

$-2x+12\ m^2 = 0 \Rightarrow x = \frac{+12}{+2} = 6m$

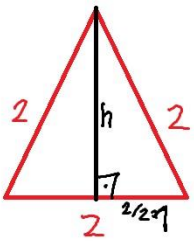
Ex 05.



Se $\overline{DC} = 2$, D é o centro do arco, temos:

Raio = 2, e E sendo ponto das circunferências,

tem $\overline{DE} = \overline{CE} = 2$. Então, DCE$\triangle$ é equilátero



$H^2 = C^2+C^2$

$2^2 = h^2+1^2$

$4 = h^2+1$

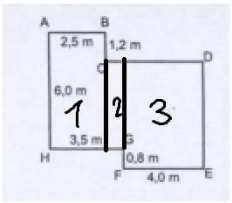
$h^2 = 4-1$

$h = \sqrt{3}$

$Área_{DCE} = \frac{b.h}{2} = \frac{2.\sqrt{3}}{2} = \sqrt{3}$

Alternativa (B).

Ex 06.



$A = A_1 + A_2 + A_3$

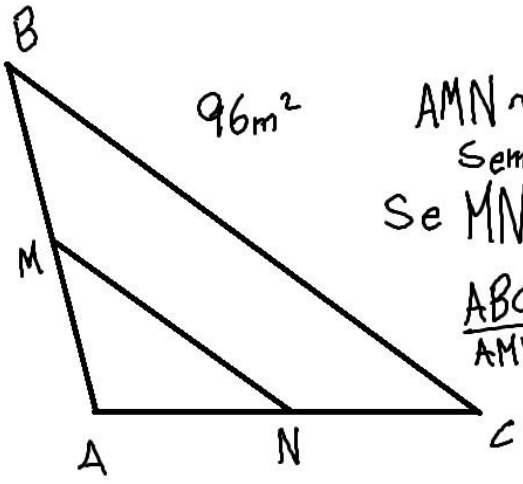
$A_1 = b.h = 2,5.6 = 15\,m^2$

$A_3 = b.h = 4.5,6 = 22,4$
$(b = 4m)$
$(h = 4,8 + 0,8 = 5,6m)$

$A_2 = b.h = 4,8.1 = 4,8\,m^2$
$(h = 6 - 1,2 = 4,8m)$
$(b = 3,5 - 2,5 = 1m)$

$A = A1 + A2 + A3$
$A = 15m^2 + 4,8m^2 + 22,4m^2$
$A = 42,2\,m^2 = \text{Alternativa (E).}$

Ex 11.



$96m^2$

$AMN \sim ABC$
Semelhantes
Se $MN = \frac{1}{2}BC$,
$\frac{ABC}{AMN} = k = 2$

Razão entre áreas:

a razão entre áreas de figuras semelhantes é igual ao quadrado da razão de semelhança dessas figuras!

$k^2 = 4 \rightarrow \frac{96}{S} = 4 \rightarrow S = 24cm^2$

$BMNC = 96 - 24 = 72\,cm^2$