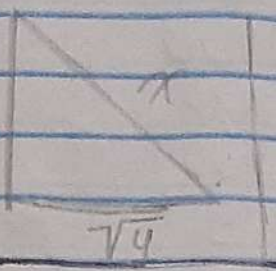
Tarefa Básica - Relações métricas no triângulo retângulo e Pitágoras.

01-



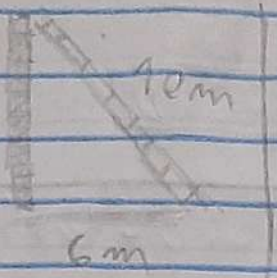
$\sqrt{3}^2 + \sqrt{4}^2 = x^2$

$3 + 4 = x^2$

$\sqrt{7} = x$

(B)

02-



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

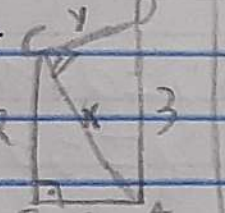
$x^2 + 36 = 100$

$x^2 = 100 - 36$

$x = \sqrt{64}$

$\boxed{x = 8\,m}$

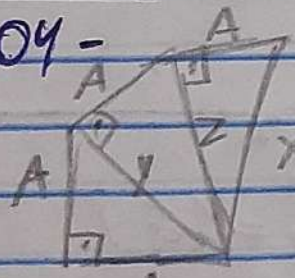
03-



$AB = 1$	$2^2 + 1^2 = x^2$	$y^2 + x^2 = 3^2$
$BC = 2$	$4 + 1 = x^2$	$y^2 + 5 = 9$
$AD = 3$	$5 = x^2$	$y^2 = 9 - 5$
$CD = ?$	$\sqrt{5} = x$	$y = \sqrt{4}$
		$y = 2$ ou $CD = 2$

(B)

04-



$y = z = x$

$A^2 + A^2 = y^2$

$2A^2 = y^2$

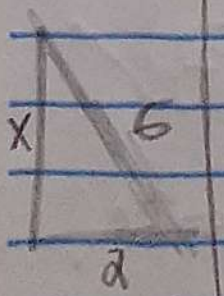
$\sqrt{2A^2} = y$

$2A = y$

$x = 2A$

(B)

05-



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

$x^2 + 4 = 36$

$x = \sqrt{32}$

$x = 4\sqrt{2}$

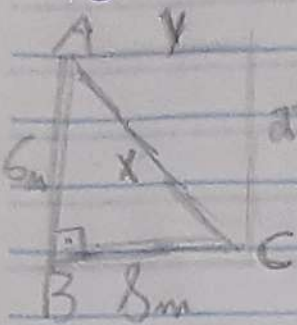
$4\sqrt{2} \cdot x$

x

Área $= 4\sqrt{2}$

(C)

06-



$6^2 + 8^2 = x^2$

$36 + 64 = x^2$

$\sqrt{100} = x$

$10 = x$

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

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

$5y^2 = 100$

$y^2 = \frac{100}{5}$

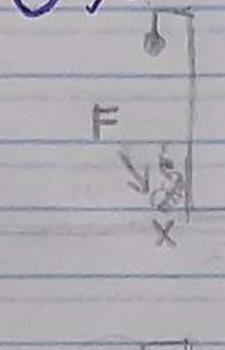
$y^2 = 20$

$y = \sqrt{20}$

$y = 2\sqrt{5}$

(A)

07-



$F_V = 10\,cm/s$

$A_V = 16\,cm/s$

$T = 5\,s$

$S = S_0 + VT$

Ana Laura: $S = 0 + 16 \cdot 5$

$S = 80\,cm$

ou

$S = 0,8\,m$

Fernanda: $S = 0 + 10 \cdot 5$

$S = 50\,cm$

ou

$S = 0,5\,m$

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

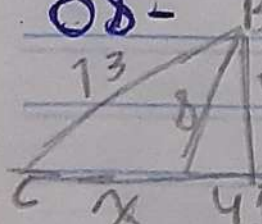
$1,44 + 0,25 = x^2$

$1,69 = x^2$

$1,3\,m = x$

(B)

08-



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

$y^2 = 64 - 16$

$y = \sqrt{48}$

$y = 4\sqrt{3}$

$y^2 + (x+4)^2 = 13^2$

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

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

$\Delta = 8^2 - 4 \cdot A \cdot C$

$\Delta = 64 + 420$

$\Delta = 484$

$x = \frac{-8 \pm \sqrt{484}}{2}$ (22)

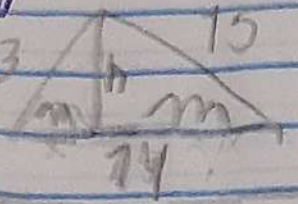
$x1 = 7$ ✓

$x2 = -15$ ✗

$x = 7\,m$

(D)

09-



$h^2 = 12,07 \cdot 16,07$

$h^2 = 193,9649$

$h = \sqrt{193,9649}$

$h \approx 14$

$13^2 = 14 \cdot m$

$169 = 14m$

$\frac{169}{14} = m$

$12,07 = m$

$h \approx 14$

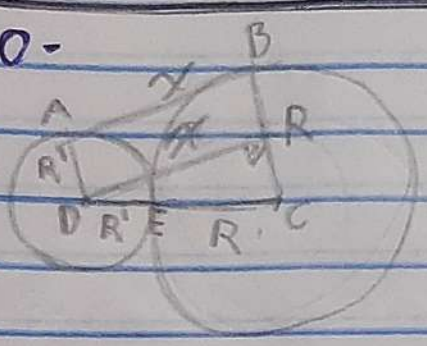
$15^2 = 14 \cdot m$

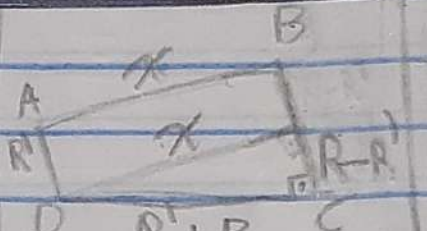
$225 = 14m$

$\frac{225}{14} = m$

$16,07 = m$

10-





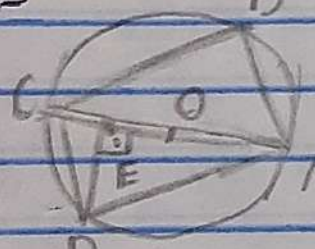
$x^2 = (R'+R)^2 - (R-R')^2$

$x^2 = (R^2 + 2RR' + R'^2) - (R^2 - 2RR' + R'^2)$

$x^2 = 4RR'$

$x = 2\sqrt{RR'}$

11-



$AB = 30$

$BC = 40$

$CD = 20$

$D\hat{E}A = 90^\circ$

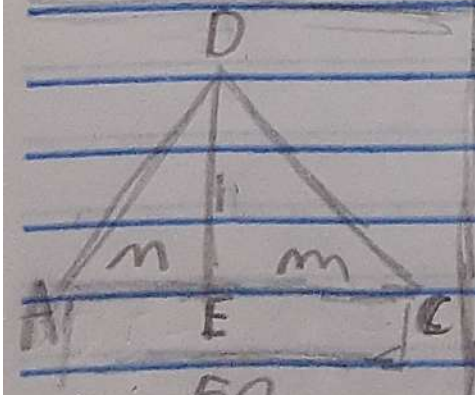
$CE = ?$

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

$CA^2 = 1600 + 900$

$CA = \sqrt{2500}$

$CA = 50$



$CD^2 = CA \cdot m$

$20^2 = 50 \cdot m$

$400 = 50m$

$\frac{400}{50} = m$

$8 = m$

$CE = 8$

(C)