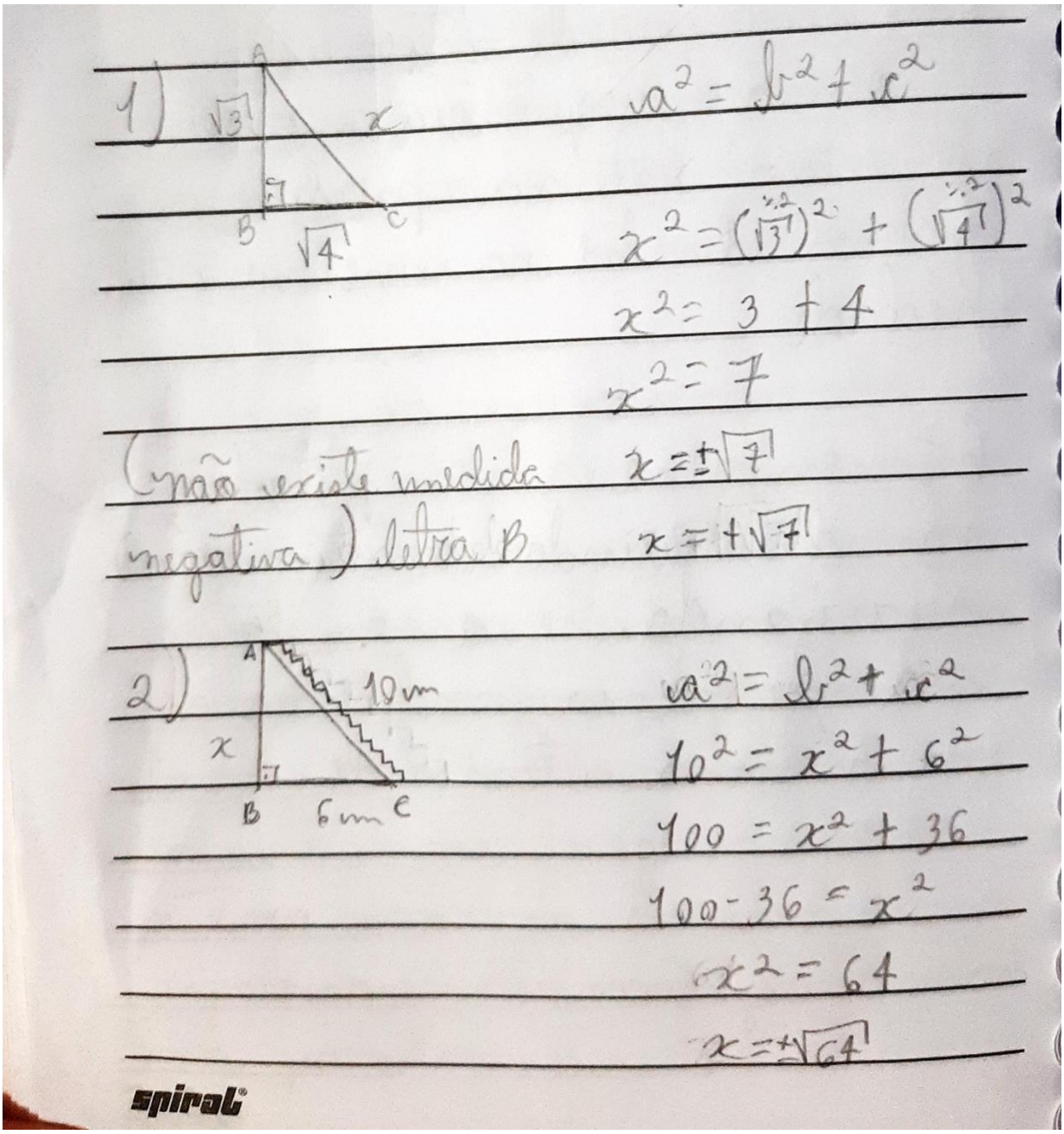
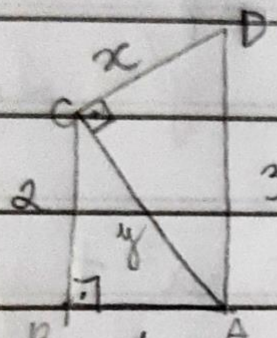
Nome: Victória Ferreira de Souza

Sala: CTII 31



$x = 8\ m$

3)



$a^2 = b^2 + c^2$

$y^2 = 1^2 + 2^2$

$y^2 = 1 + 4$

$y^2 = 5$

$y = \sqrt{5}$

$3^2 = x^2 + (\sqrt{5})^2$

$9 = x^2 + 5$

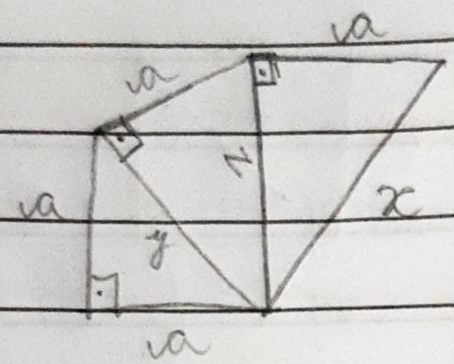
$9 - 5 = x^2$

$x^2 = 4$

$x = \sqrt{4}$

$x = 2$ letra B

4) $a^2 = b^2 + c^2$



$y^2 = a^2 + a^2$

$y^2 = 2a^2$

$z^2 = a^2 + y^2$

$z^2 = a^2 + 2a^2$

$z^2 = 3a^2$

$x^2 = a^2 + z^2$

$x^2 = a^2 + 3a^2$

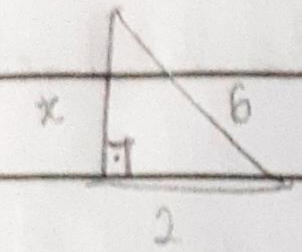
$x^2 = 4a^2$

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

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

$x = 2a$ ... letra B

5)



$a^2 = b^2 + c^2$

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

$36 = x^2 + 4$

$36 - 4 = x^2$

$x^2 = 32$

$x = \sqrt{32}$

$x = 4\sqrt{2}$

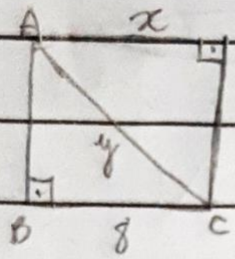
$A = ?$ $A = \frac{b \cdot h}{2}$

$A = \frac{x \cdot 4\sqrt{2}}{2}$

$A = 4\sqrt{2}$ letra C

6)

$a^2 = b^2 + c^2$



$y^2 = 6^2 + 8^2$

$y^2 = 36 + 64$

$y^2 = 100$

$y = \sqrt{100}$

$y = 10$

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

$100 = x^2 + 4x^2$

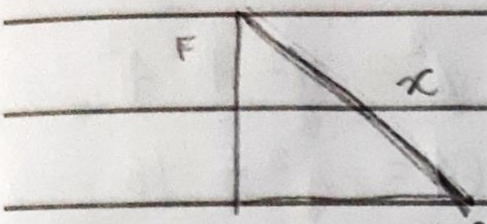
$100 = 5x^2$

$x^2 = 20$

$x = \sqrt{20}$

$x = 2\sqrt{5}$ letra A

7)



5 segundos

10 cm ← x

↳ por segundo

x → 16 cm

↳ por segundo

Aranha = 5 . 16 = 80 cm → 0,80 m

2m → 2,00 - 0,80 = 1,20 m

Formiga = 5 . 10 = 50 cm = 0,50 m

$a^2 = b^2 + c^2$

$x^2 = 1,20^2 + 0,50^2$

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

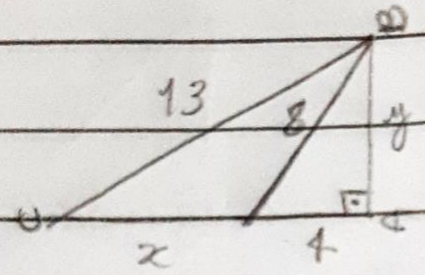
$x^2 = 1,69$

$x = \sqrt{1,69}$

$x = 1,3$ m letra B

8)

$a^2 = b^2 + c^2$



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

$64 = y^2 + 16$

$64 - 16 = y^2$

$y^2 = 48$

$y = \sqrt{48}$

$y = 4\sqrt{3}$

$13^2 = (x+4)^2 + (4\sqrt{3})^2$

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

$169 = x^2 + 8x + 64$

$x^2 + 8x + 64 - 169 = 0$

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

$a = 1, \; b = 8, \; c = -105$

$\Delta = b^2 - 4 \cdot a \cdot c$

$\Delta = 8^2 - 4.1.(-105)$

$\Delta = 64 + 420$

$\Delta = 484$

$$\frac{-b \pm \sqrt{\Delta}}{2.a}$$

$$\frac{-8 \pm \sqrt{484}}{2.1}$$

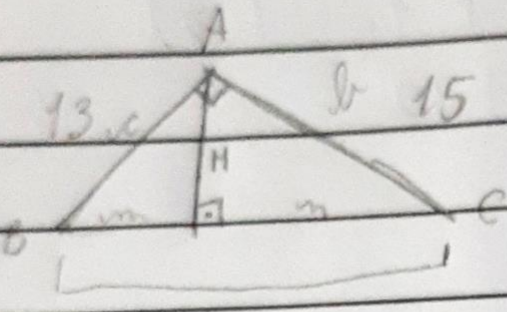
$$\frac{-8 \pm 22}{2}$$

x_1 $\frac{-8+22}{2} = \frac{14}{2} = 7$

x_2 $\frac{-8-22}{2} = \frac{-30}{2} = -15$

R: x vale 7 m, pois não existe medida negativa. letra D

9)



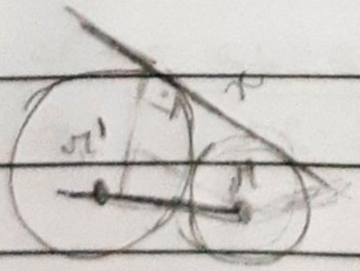
$14h = 15 \cdot 13$

$14h = 195$

$h = \frac{195}{14}$

$h = 13,9$

10)



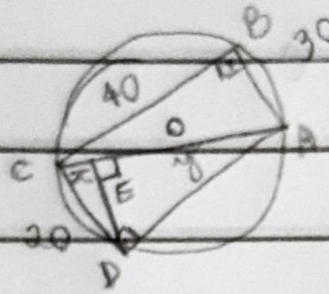
$x^2 = (r' + r)^2 - (r' - r)^2$

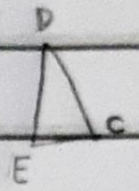
$x^2 = (r'^2 + 2r'r + r^2) - (r'^2 - 2r'r + r^2)$

$x^2 = 4 \cdot r' \cdot r$

$x = 2\sqrt{r \cdot r'}$

11) CE = ?





$a^2 = b^2 + c^2$

$y^2 = 40^2 + 30^2$

$y^2 = 1600 + 900$

$y^2 = 2500$

$y = \sqrt{2500}$

$y = 50$

$\frac{x}{20} = \frac{20}{50}$ → $x = \frac{400}{50}$

$50x = 400$ → $x = 8$ letra C