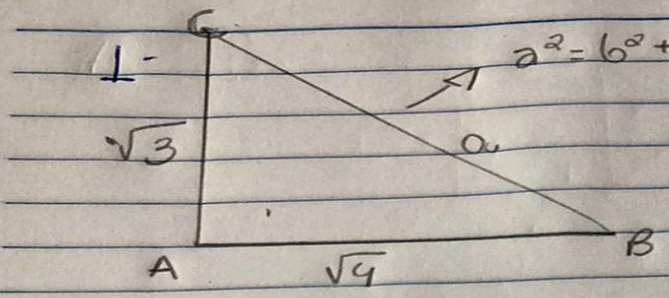
1-



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

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

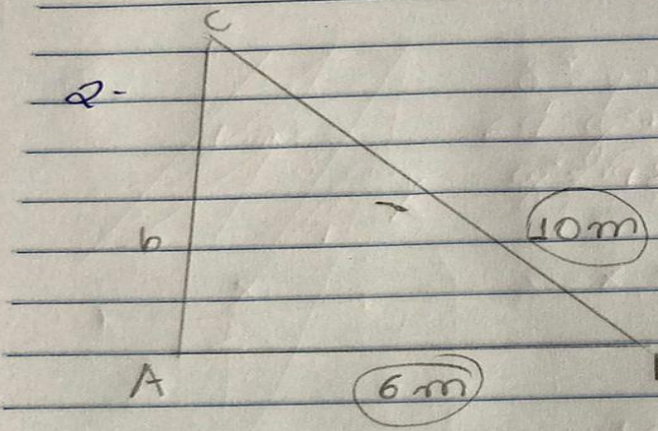
$a^2 = 3 + 4$

$a^2 = 7$

$a = \sqrt{7}$

B

2-



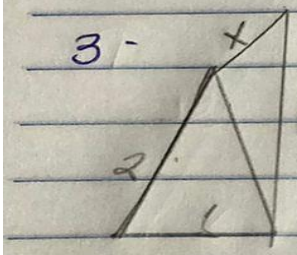
$10^2 = b^2 + c^2$

$b^2 = 100 - 36$

$b^2 = 64$

$b = \sqrt{64}$

3-



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

$y^2 = 4 + 1$

$y = \sqrt{5}$

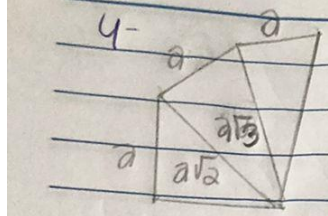
$3^2 = x^2 + (\sqrt{5})^2$

$9 = x^2 + 5$

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

B

4-



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

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

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

$z^2 = a^2 \cdot 2 + a^2$

$z = \sqrt{3a^2} \quad a\sqrt{3}$

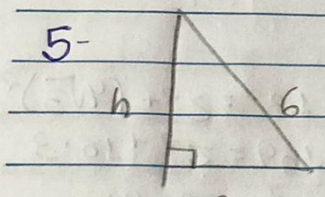
x, y, z

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

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

B

5-



$6^2 = h^2 + 2^2$

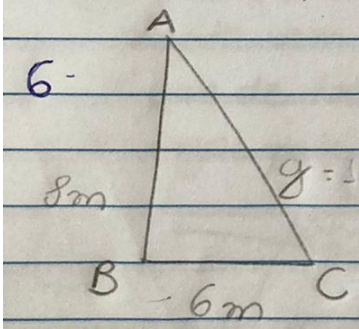
$36 = h^2 + 4$

$h^2 = 36 - 4 = \sqrt{32} = 4\sqrt{2}$

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

C

6-



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

$y^2 = 36 + 64$

$y = \sqrt{100} = 10$

10 2x x

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

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

$100 = 5x^2$

$x^2 = \frac{100}{5} = \sqrt{20}$

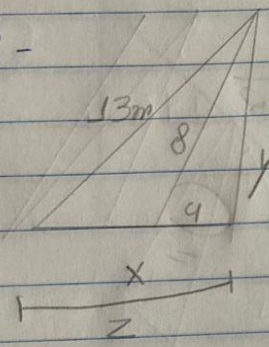
$\sqrt{2^2 \cdot 5} = 2\sqrt{5}$

7- Uma aranha a 2m do poste
velocidade por segundo é 16cm
formiga 10cm
5 segundos · 16cm = 0,80m (80cm)
2m de poste - 0,80m = 1,20m de distância
formiga 5 · 10 = 0,50m

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

$AB^2 = 1,44 + 0,25 = \sqrt{1,69} = 1,30m$

8-



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

$64 = y^2 + 16$

$y^2 = \sqrt{48} = 4\sqrt{3}\ m$

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

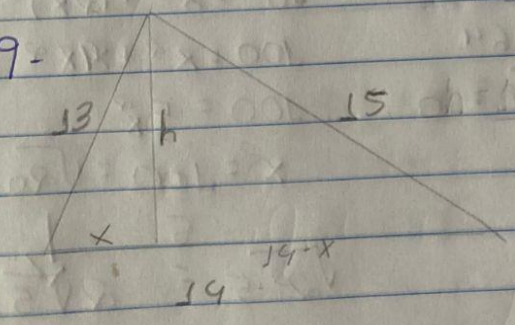
$\rightarrow 169 = z^2 + 16 \cdot 3$

$z^2 = 169 - 48$

$z^2 = \sqrt{121} = 11m$

$x = 11 - 4 = 7m$

9-



Perímetro e Herão
Os lados

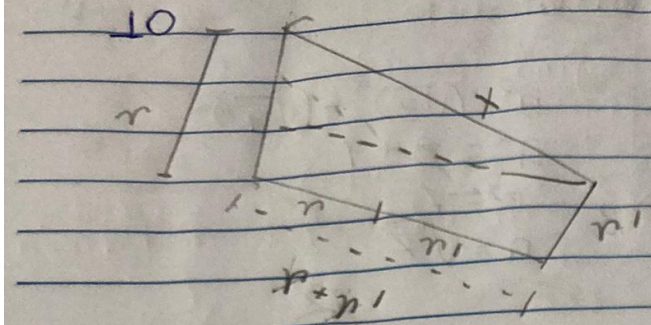
$\frac{13+14+15}{2} = 21$

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

$A = 84$

$A \frac{14h}{2} - 84 = \frac{14h}{2}$ $h = \frac{168}{14} = 12$

10



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

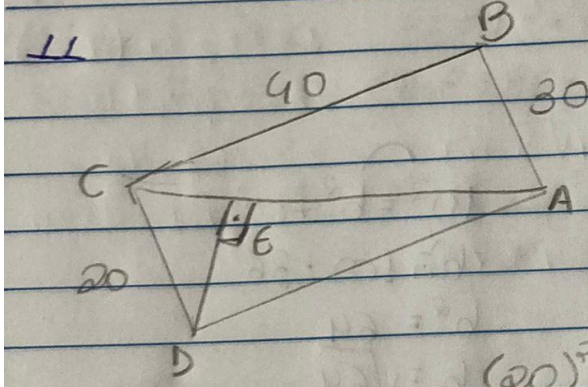
$x^2 = (r^2 + 2rr' + r'^2) - (r^2 - 2rr' + r'^2)$

$x^2 = r^2 + 2rr' + r'^2 + 2rr' - r'^2$

$x^2 = 4rr'$

$x = 2\sqrt{rr'}$

11



AC

90°

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

$AC^2 = 1600 + 900$

$AC^2 = 2500$

$AC = \sqrt{2500} = 50$

$(20)^2 = 50n$

$400 = 50n$

$n = \frac{400}{50} = 8$