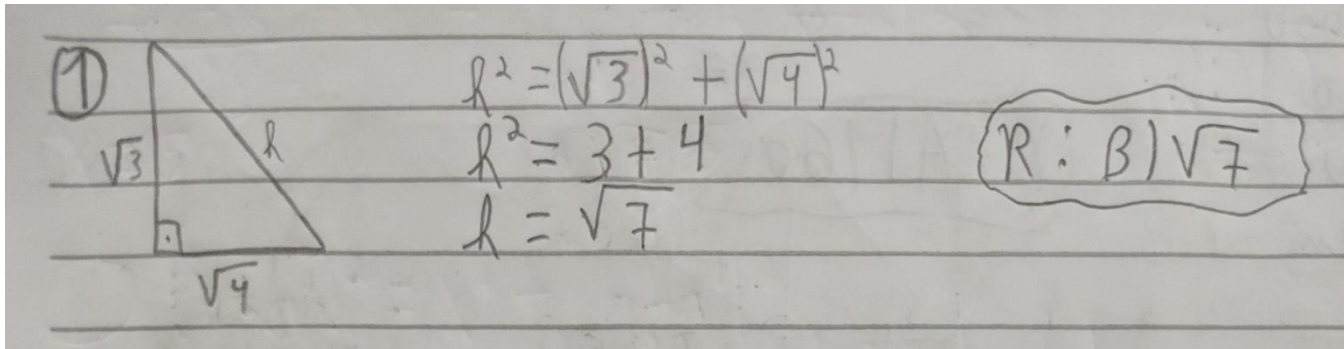


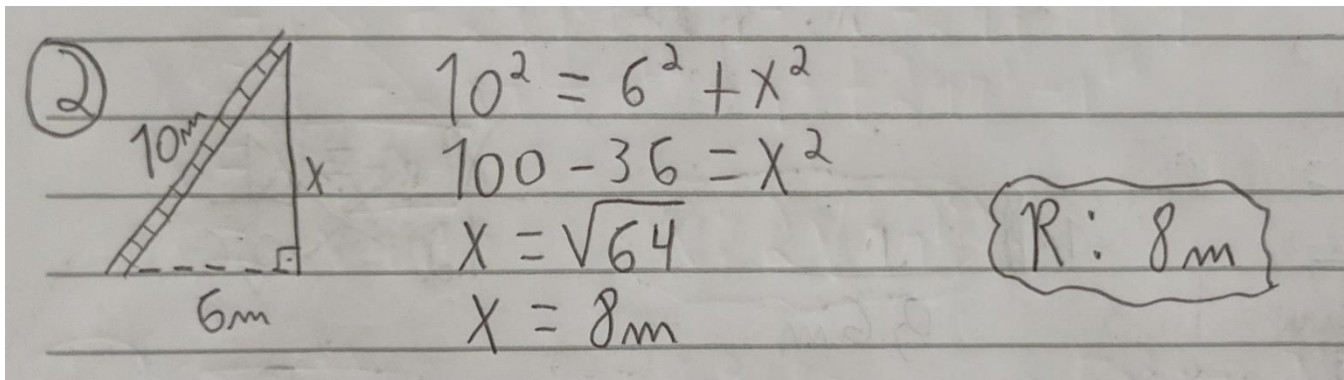
Triângulo Retângulo:

1.



R: b) $\sqrt{7}$

2.



R: 8m

3.

③

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

$$h^2 = 4 + 1$$

$$h = \sqrt{5}$$

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

$$9 = 5 + x^2$$

$$9 - 5 = x^2$$

$$x = \sqrt{4}$$

$$x = 2$$

R: b) 2

R: b) 2

4.

④

$$h^2 = a^2 + a^2$$

$$h^2 = 2a^2$$

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

$$h = 2a$$

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

$$y^2 = 3a^2$$

$$y = \sqrt{3a^2}$$

$$y = 3a$$

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

$$x^2 = 4a^2$$

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

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

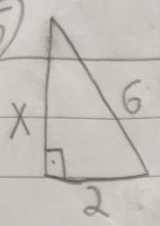
$$x = 2a$$

R: b) 2a

R: b) 2a

5.

⑤



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

$$36 = 4 + x^2$$

$$x^2 = 36 - 4$$

$$x = \sqrt{32}$$

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

$$A = \frac{b \cdot h}{2} = \frac{2 \cdot 4\sqrt{2}}{2}$$

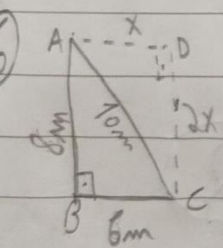
$$A = 4\sqrt{2}$$

R: C) $4\sqrt{2}$

R: c) $4\sqrt{2}$

6.

⑥



$$10^2 = 8^2 + 6^2$$

$$100 = 64 + 36$$

$$100 = x^2 + (2x)^2$$

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

$$100 = 5x^2$$

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

$$x = \sqrt{20}$$

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

R: A) $2\sqrt{5}$

R: a) $2\sqrt{5}$

7.

⑦

$h_{\text{per}} = 10.5$
 $h_{\text{for}} = 50\text{cm}$
 $\text{dara} = 16.5$
 $\text{dara} = 80\text{cm}$

$200\text{cm} - 80\text{cm} = 120\text{cm}$
 $h^2 = 120^2 + 50^2$
 $h^2 = 14400 + 2500$
 $h = \sqrt{16900}$
 $h = 130\text{cm}$
 $h = 1,3\text{m}$

R: B) 1,3m

R: b) 1,3m

8.

⑧

$8^2 = 4^2 + a^2$
 $64 = 16 + a^2$
 $a = \sqrt{48}$
 $a = 4\sqrt{3}$

$13^2 = (x+4)^2 + (4\sqrt{3})^2$
 $169 = x^2 + 8x + 16 + 48$
 $x^2 + 8x + 64 - 169$
 $x^2 + 8x - 105$
 $x' = \frac{-8 \pm 22}{2}$
 $x' = 7\text{m}$

$\Delta = 8^2 - 4 \cdot 1 \cdot (-105)$
 $\Delta = 64 + 420$
 $\Delta = 484$
 $\sqrt{484} = 22$

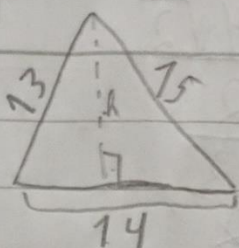
$x'' = \frac{-8 - 22}{2}$
 $x'' = -15$

R: D) 7m

R: d) 7m

9.

⑨



$$15^2 = h^2 + (14-x)^2$$

$$225 = h^2 + x^2 - 28x + 196$$

$$-h^2 = x^2 - 28x + 196 - 225$$

$$-h^2 = x^2 - 28x - 29 \cdot (-1)$$

$$h^2 = -x^2 + 28x + 29$$

$$13^2 = h^2 + x^2$$

$$169 = -x^2 + 28x + 29 + x^2$$

$$169 - 29 = 28x$$

$$X = \frac{140}{28}$$

$$X = 5$$

$$h^2 = -5^2 + 28 \cdot 5 + 29$$

$$h^2 = -25 + 140 + 29$$

$$h = \sqrt{144}$$

$$h = 12$$

R: 12

R: 12

10.

⑩

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

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

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

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

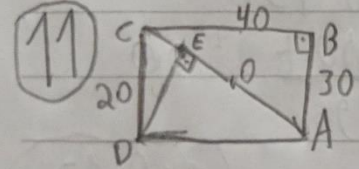
$$x = 2\sqrt{nn'}$$

R: $2\sqrt{nn'}$

R: $2\sqrt{r * r'}$

11.

11



$$h^2 = 30^2 + 40^2$$

$$h^2 = 900 + 1600$$

$$h = \sqrt{2500}$$

$$h = 50$$

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

$$50x = 20 \cdot 20$$

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

$$x = 8$$

R: c) 8

R: c) 8