1- $A^2 = B^2 + C^2$

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

$A^2 = 3 + 4$

$A = \sqrt{7}$ Alternativa B

2- $A^2 = B^2 + C^2$

$10^2 = B^2 + C^2$

$B^2 = 100 - 36$

$B = \sqrt{64} = 8$ Resposta: 8 m.

3- $A^2 = B^2 + C^2$

$\Rightarrow y^2 = 2^2 + 1^2$

$y = \sqrt{5}$

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

$x^2 = 9 - 5$

$x = \sqrt{4} = 2$

Alternativa B

4- $y^2 = A^2 + A^2$

$y^2 = 2A^2$

$y = A\sqrt{2}$

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

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

$z^2 = 3A^2$

$z = A\sqrt{3}$

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

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

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

$x = 2A$ Alternativa B

___/___/___

$$5 - 6^2 = H^2 + 2^2$$
$$36 = H^2 + 4$$
$$H^2 = 36 - 4$$
$$H = \sqrt{32} = 2 \cdot 2\sqrt{2}$$
$$H = 4\sqrt{2}$$

Área De um
triângulo $= \dfrac{B \cdot H}{2}$

$$A = \dfrac{\cancel{2} \cdot 4\sqrt{2}}{\cancel{2}}$$
$$A = 4\sqrt{2}$$ Alternativa C

$$6 - y^2 = 6^2 + 8^2$$
$$y^2 = 36 + 64$$
$$y^2 = 100$$
$$y = 10m$$

$$10^2 = x^2 + (2x)^2$$
$$100 = x^2 + 4x^2$$
$$x^2 = \dfrac{100}{5}$$
$$x = \sqrt{20} = \sqrt{2^2 \cdot 5}$$

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

$$7 - 5\,segundos \times 16\,cm = 80\,cm \quad ou \quad 0,80\,m$$

$$2m - 0,80\,m = 1,20\,m$$
$$5 \cdot 10 = 0,50\,m$$

$$AB^2 = 1,20^2 + 0,50^2$$
$$AB^2 = 1,44 + 0,25 = \sqrt{1,69}$$
$$AB^2 = 1,30\,m$$

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

$y^2 = 64 - 16$

$y = \sqrt{48} = \sqrt{2^2 \cdot 2^2 \cdot 3}$

$y = 4\sqrt{3}\ m$

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

$z^2 = 164 - 48$

$z = \sqrt{121}$

$z = 11$

$x = z - 4$

$x = 11 - 4$

$x = 7$ Alternativa D

9- $15^2 = H^2 + 14(14-x)^2$

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

$H^2 = 29 - 28x - x^2$

$13^2 = H^2 + x^2$

$13^2 = 29 + 28x - x^2 + x^2$

$140 = 28x$

$x = \dfrac{140}{28} = 5$

$13^2 = H^2 + 5^2$

$H^2 = 169 - 25$

$H = \sqrt{144}$

$H = 12$ Alternativa)

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

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

$x^2 = 2RR' + 2RR'$

$x^2 = 4RR'$

$x = \sqrt{4RR'}$

$x = 2\sqrt{RR'}$

11. $AC^2 = (40)^2 + (30)^2$
$AC^2 = 1600 + 90$
$AC = \sqrt{2500} = 50$

$(20)^2 = 50n$
$50n = 400$
$n = \dfrac{400}{50} = 8$