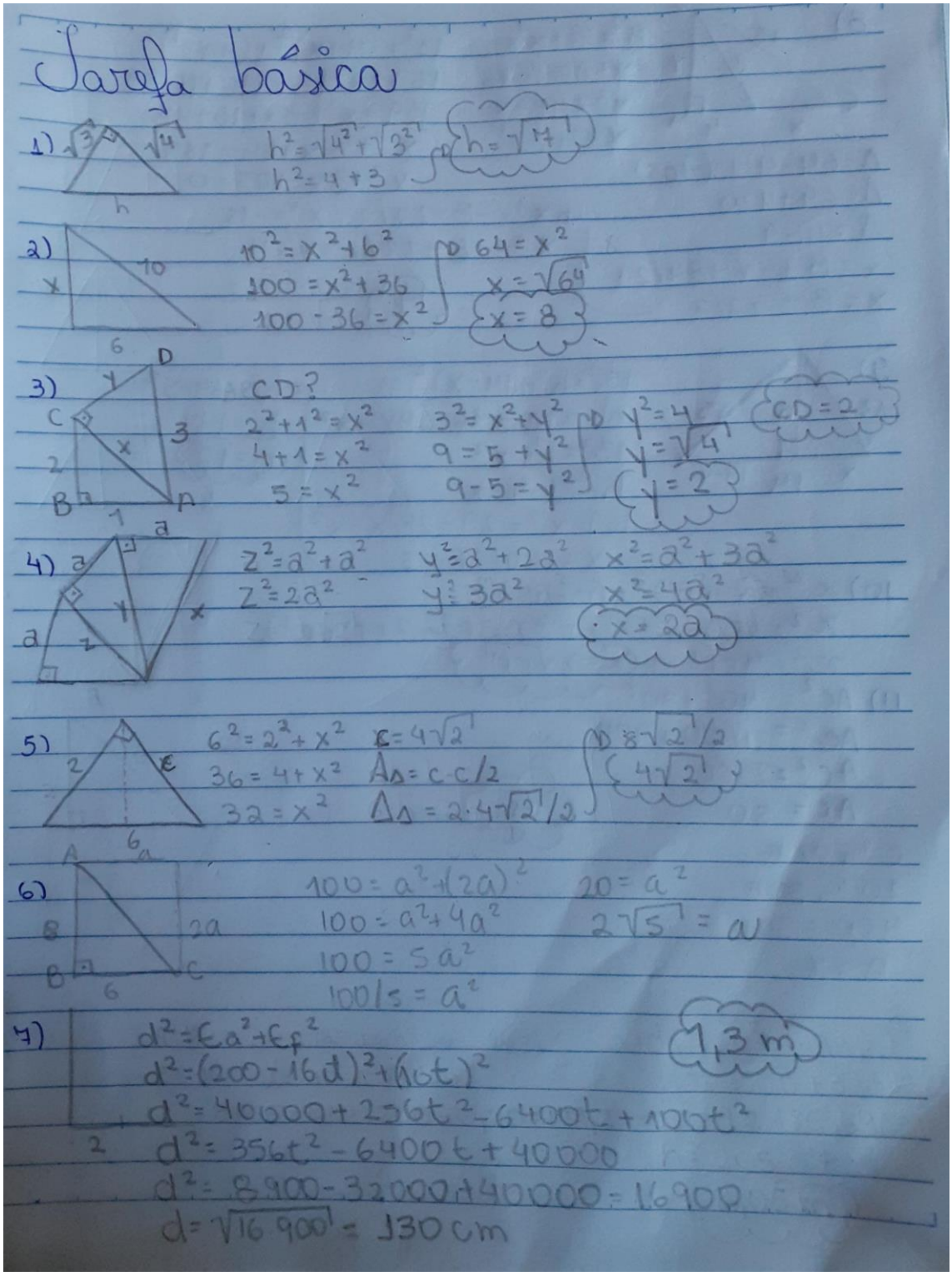
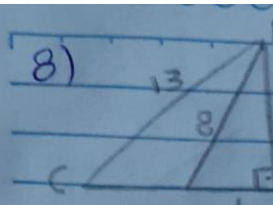
TRIÂNGULO RETÂNGULO



8)



$8^2 = 4^2 + x^2$

$x^2 = 64 - 16$

$x^2 = 48$

$x = 4\sqrt{3}$

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

$169 = x^2 + 8x + 16 + 16 \cdot 3$

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

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

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

$\Delta = 64 - 4 \cdot 1 \cdot (-105)$

$\Delta = 64 + 420$

$\Delta = 484$

$x = 8 \pm \sqrt{484}/2$

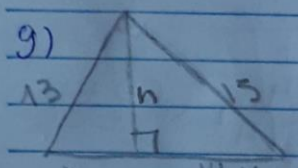
$x = 8 \pm 22/2$

$x' = -8 - 22/2 = x' = -15$

$x'' = -8 + 22/2 = x'' = 7$

7

9)



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

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

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

$h^2 = 169 - x^2$

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

$x = 140/28 = 5$

$h^2 = 169 - 5^2$

$h^2 = 144$

$h = 12$

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

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

$x^2 = 4rr' \rightarrow x = 2\sqrt{rr'}$

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

$AC^2 = 1600 + 900$

$AC^2 = 2500$

$AC = 50$

8

$c^2 = a \cdot n$

$20^2 = 50n$

$400 = 50n$

$n = 8$