

① 37.2 m^2

$$\begin{matrix} 12 & \times & 3.1 \\ b & & h \end{matrix}$$

② 20 ft^2

$$\frac{1}{2} \begin{matrix} (10) & (4) \\ b & h \end{matrix}$$

③ $h = 9.6 \text{ m}$

$$48 = \frac{1}{2} (10)(h)$$

④ $b = 6 \text{ in}$

$$183 = b(3)$$

⑤ $x = 7.2 \text{ or } 2\sqrt{13}$

$$4^2 + 6^2 = x^2$$

$$x^2 = \sqrt{52}$$

$$x = 2\sqrt{13}$$

⑥ $x = 9.9, \text{ or } 7\sqrt{2}$

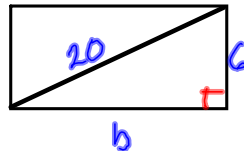
$$2x^2 = 14^2$$

$$x^2 = 98$$

$$x = 7\sqrt{2}$$

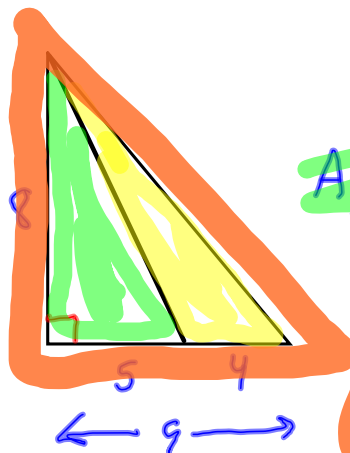
⑦ 114.5 m^2

$$6^2 + b^2 = 20^2$$



⑧ 16 units^2

$$\begin{aligned} A_{\Delta} &= A_{\Delta} - A_{\Delta} \\ &= 36 - 20 = 16 \end{aligned}$$

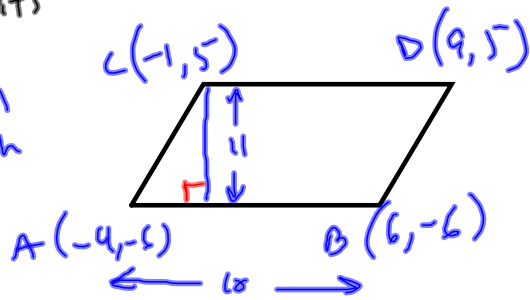


$$A_{\Delta} = \frac{1}{2} (5)(8) = 20$$

$$A_{\Delta} = \frac{1}{2} (9)(8) = 36$$

(9) 110 units^2

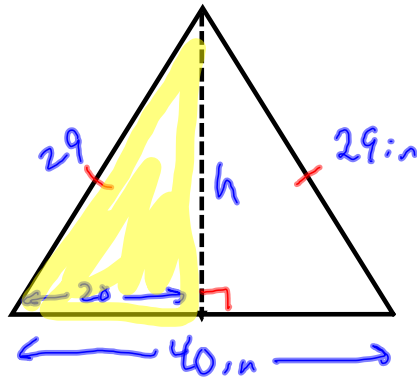
$$A = \frac{10 + 11}{2} h$$



(10) 210 in^2

$$29^2 = 20^2 + h^2$$
$$h = 21$$

$$A = \frac{1}{2} (20)(21)$$



(11) acute

$$6^2 + 9^2 = 117$$

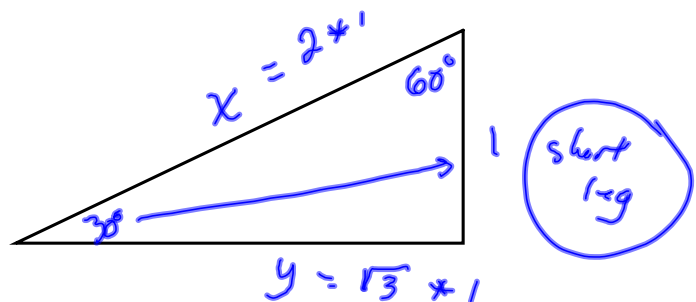
$$10^2 = 110$$

$$117 > 110$$

$$\downarrow$$
$$a^2 + b^2 > c^2$$

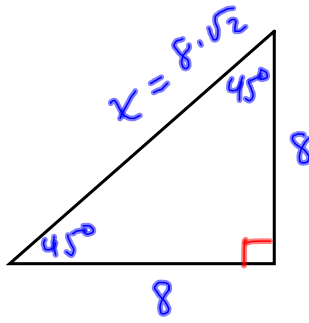
(12) $x = 2$

$$y = \sqrt{3}$$



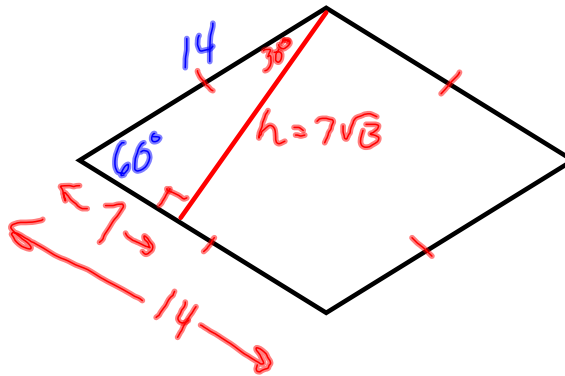
short leg

(13) $8\sqrt{2}$



(14) 170 in^2

$$A = b \times h$$
$$= 14 \times 7\sqrt{3}$$
$$= 169.7 \text{ in}^2$$



(15)

$$x = -3$$
$$y = 4$$

$$2x - y = -10 \rightarrow y = 2x + 10$$
$$-3x - 2y = 1$$

$$-3x - 2(2x + 10) = 1$$
$$-3x - 4x - 20 = 1$$
$$-7x = 21$$
$$x = -3$$

$$y = 2x + 10$$
$$= -6 + 10$$
$$= 4$$