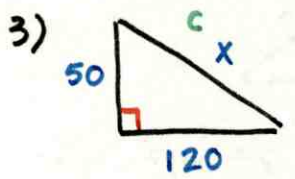


7.1



$$x^2 = 50^2 + 120^2$$

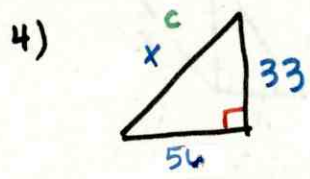
$$x^2 = 2500 + 14400$$

$$\sqrt{x^2} = \sqrt{16900}$$

$$x = \sqrt{16900}$$

$$\begin{array}{r} 2^{\wedge} 845 \\ - 5^{\wedge} 169 \\ \hline 13 \quad 13 \end{array}$$

x = 130



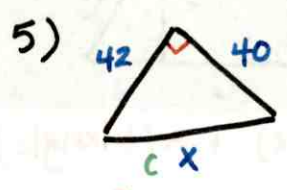
$$x^2 = 56^2 + 33^2$$

$$x^2 = 3136 + 1089$$

$$\sqrt{x^2} = \sqrt{4225}$$

$$x = \sqrt{4225}$$

x = 65



$$x^2 = 42^2 + 40^2$$

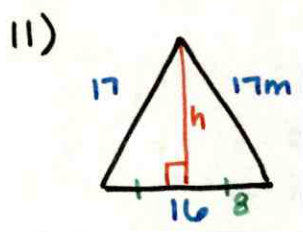
$$x^2 = 1764 + 1600$$

$$\sqrt{x^2} = \sqrt{3364}$$

$$x = \sqrt{3364}$$

$$\begin{array}{r} 2^{\wedge} 82 \\ - 2^{\wedge} 41 \\ \hline \end{array}$$

x = 58



$$A = \frac{16(15)}{2}$$

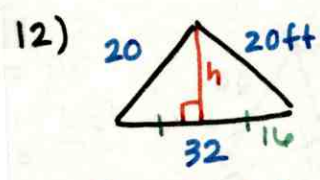
A = 120 m²

$$17^2 = 8^2 + h^2$$

$$289 = 64 + h^2$$

$$\sqrt{225} = \sqrt{h^2}$$

$$h = 15$$



$$A = \frac{12(32)}{2}$$

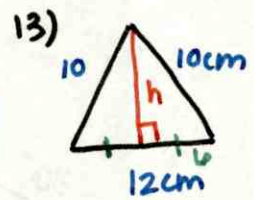
A = 192 ft²

$$20^2 = 16^2 + h^2$$

$$400 = 256 + h^2$$

$$\sqrt{144} = \sqrt{h^2}$$

$$h = 12$$



$$A = \frac{12(8)}{2}$$

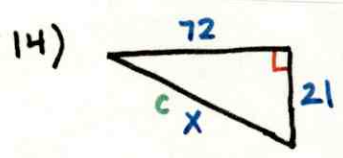
A = 48 cm²

$$10^2 = 6^2 + h^2$$

$$100 = 36 + h^2$$

$$64 = h^2$$

$$h = 8$$



$$x^2 = 72^2 + 21^2$$

$$x^2 = 5184 + 441$$

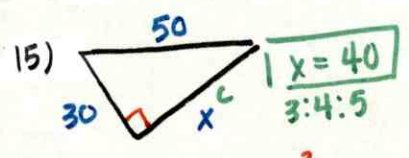
$$\sqrt{x^2} = \sqrt{5625}$$

x = 75

$$x = \sqrt{4743}$$

$$\begin{array}{r} 3^{\wedge} 1581 \\ 3^{\wedge} 527 \\ 17 \quad 31 \end{array}$$

x = 75

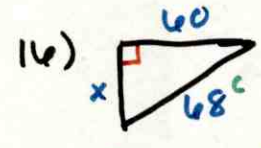


$$50^2 = x^2 + 30^2$$

$$2500 = x^2 + 900$$

$$\sqrt{1600} = \sqrt{x^2}$$

x = 40
3:4:5



$$68^2 = x^2 + 60^2$$

$$4624 = x^2 + 3600$$

$$\sqrt{1024} = \sqrt{x^2}$$

x = 32
8:12:17

18) 24 and 51

$$51^2 = 24^2 + b^2$$

$$2601 = 576 + b^2$$

$$\sqrt{2025} = \sqrt{b^2}$$

b = 45 Leg

24, 45, 51

20) 28 and 96

$$96^2 = 28^2 + b^2$$

$$9216 = 784 + b^2$$

$$\sqrt{8432} = \sqrt{b^2}$$

$$b = 91.8$$

$$c^2 = 96^2 + 28^2$$

$$c^2 = 9216 + 784$$

$$\sqrt{c^2} = \sqrt{10,000}$$

c = 100 Hypotenuse

28, 96, 100

22) 75 and 85

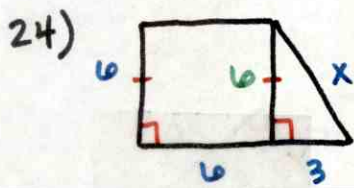
$$85^2 = 75^2 + b^2$$

$$7225 = 5625 + b^2$$

$$\sqrt{1600} = \sqrt{b^2}$$

b = 40 Leg

40, 75, 85



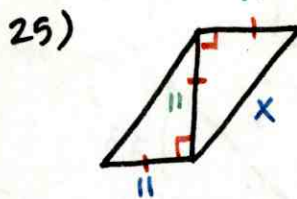
$$x^2 = 3^2 + 6^2$$

$$x^2 = 9 + 36$$

$$\sqrt{x^2} = \sqrt{45}$$

$$x = \sqrt{45}$$

$$x = 3\sqrt{5}$$



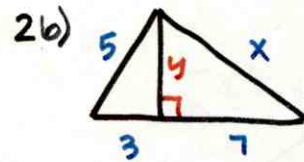
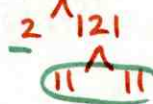
$$x^2 = 11^2 + 11^2$$

$$x^2 = 121 + 121$$

$$\sqrt{x^2} = \sqrt{242}$$

$$x = \sqrt{242}$$

$$x = 11\sqrt{2}$$



$$5^2 = 3^2 + y^2$$

$$25 = 9 + y^2$$

$$\sqrt{16} = \sqrt{y^2}$$

$$y = 4$$

$$y = 4$$

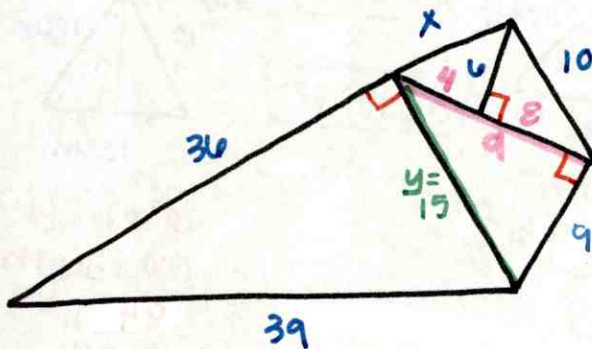
$$x^2 = 4^2 + 7^2$$

$$x^2 = 16 + 49$$

$$\sqrt{x^2} = \sqrt{65}$$

$$x = \sqrt{65}$$

29)



$$39^2 = 36^2 + y^2$$

$$1521 = 1296 + y^2$$

$$\sqrt{225} = \sqrt{y^2}$$

$$y = 15$$

$$15^2 = 9^2 + a^2$$

$$225 = 81 + a^2$$

$$\sqrt{144} = \sqrt{a^2}$$

$$a = 12$$

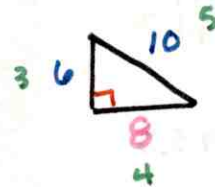
$$x^2 = 4^2 + 6^2$$

$$x^2 = 16 + 36$$

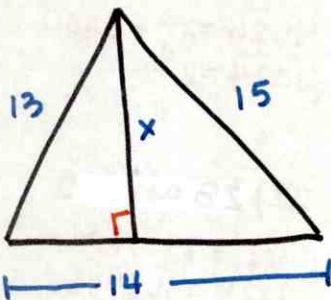
$$\sqrt{x^2} = \sqrt{52}$$

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

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

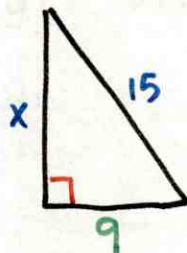
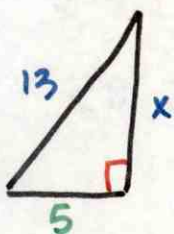


30)



$$x = 12$$

5, 12, 13 9, 12, 15



This hypotenuse tells you that it is a Pythagorean Triple.