

9.6 EXAMPLES

Note Title

3/2/2012

1. $(3, 4, 5)$

$$a(15, 20, \underline{\quad}) = 5(3, 4, \underline{5}) \Rightarrow \underline{25}$$

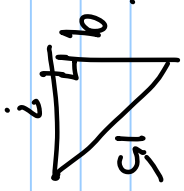
$$b(27, \underline{\quad}, 45) = 9(3, \underline{\quad}, 5) = 9 \cdot 4 = \underline{36}$$

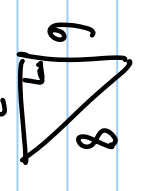
$$c(\underline{\frac{2}{3}}, 28, 35) = 7(\underline{\frac{3}{7}}, 4, 5) = 3 \cdot 7 = \underline{21}$$

$$d(1, 1\frac{1}{3}, \underline{\quad}) = (\frac{3}{3}, \frac{4}{3}, \underline{\frac{5}{3}}) = \frac{1}{3}(3, 4, \underline{5}) \Rightarrow \underline{\frac{5}{3}}$$

3. $(7, 24, 25)$

$$c(\underline{\frac{1}{7}}, 96, 100) = 4(\underline{7}, 24, 25) \Rightarrow \underline{7 \cdot 4 = 28}$$

5. a.  $\rightarrow (9, \underline{\quad}, 15) = 3(3, \underline{4}, 5) = \underline{12}$

b.  $\rightarrow (6, \underline{\quad}, 8) = 2(3, \underline{\sqrt{7}}, 4) = \underline{2\sqrt{7}}$

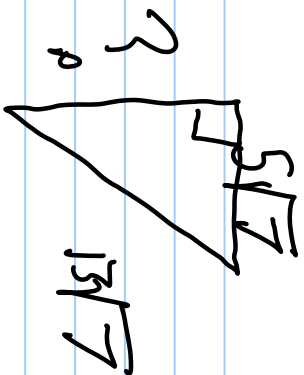
$3^2 + b^2 = 4^2 \rightarrow 9 + b^2 = 16 \rightarrow b^2 = 16 - 9 = b^2 = 7$
 $b = \sqrt{7}$

c.  $2(12, \underline{5}, 13) =$

$12^2 + b^2 = 13^2$
 $144 + b^2 = 169$
 $\quad \quad \quad -144$
 $b^2 = 25$
 $b = 5$

10

5-1



$$\begin{aligned} & (5\sqrt{7} \rightarrow (12\sqrt{7}, 13\sqrt{7})) \\ & \sqrt{7}(5, 12, 13). \end{aligned}$$

Pg

$$\begin{aligned} & (-, 1.2, 1.3) \\ & \frac{1}{10}(-5, 12, 13) \quad 5 \cdot \frac{1}{10} = \frac{1}{2} \end{aligned}$$

$$(16, 30, \underline{\quad}) \Rightarrow (8, \underline{15}, \underline{12}) : 34$$

9.6

(leg, leg, hyp) $\swarrow$ *

$$(a, b, \underline{c}) \Rightarrow a^2 + b^2 = c^2$$

1. (3, 4, 5)

$$a. (15, 20, \underline{\quad}) = 5(3, 4, \underline{5}) = \underline{25}$$

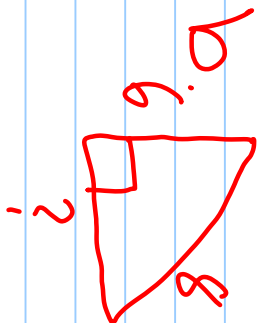
$$b. (27, \underline{\quad}, 45) = 9(3, \underline{4}, 5) = \underline{36}$$

$$1d. (1, 1\frac{1}{3}, \underline{\quad}) = (\frac{3}{3}, \frac{4}{3}, \underline{\quad}) = \frac{1}{3}(3, 4, \underline{5}) = \underline{\frac{5}{3}}$$

3 (7, 24, 25)

$$d. (.7, \underline{\quad}, 2.5) = \frac{1}{10}(7, \underline{\quad}, 25) \rightarrow \frac{24}{10} \approx 2.4$$

5/10/20



$$= (8, 6, 1)$$

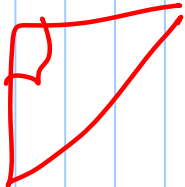
$$= 2\sqrt{2} \times 2\sqrt{2} \times 2\sqrt{2}$$

$$= 2\sqrt{2} \times 2\sqrt{2}$$

$$= 2\sqrt{2} \times 2\sqrt{2}$$

$$= 2\sqrt{2} \times 2\sqrt{2}$$

52.



(16, 30)

2(8, 15, 17)

