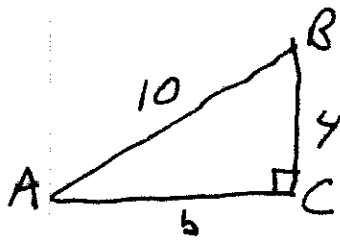


200709111140 Name Key

Solve for the unknown side using $a^2 + b^2 = c^2$ in a step by step manner



$$a^2 + b^2 = c^2$$

$$b^2 = c^2 - a^2$$

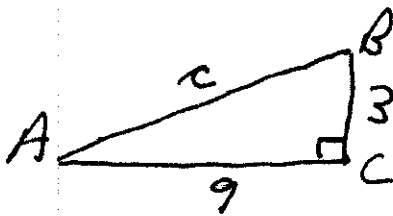
$$b^2 = 10^2 - 4^2$$

$$b^2 = 100 - 16$$

$$b^2 = 84$$

$$b = \sqrt{b^2} = \sqrt{84} = \sqrt{4 \cdot 21} = 2\sqrt{21}$$

$$b = 2\sqrt{21} = 9.165$$



$$c^2 = a^2 + b^2$$

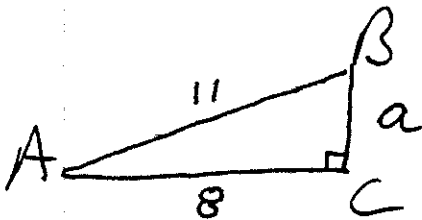
$$c^2 = 3^2 + 9^2$$

$$c^2 = 9 + 81$$

$$c^2 = 90$$

$$c = \sqrt{c^2} = \sqrt{90} = \sqrt{9 \cdot 10} = 3\sqrt{10}$$

$$c = 3\sqrt{10} = 9.4868$$



$$a^2 + b^2 = c^2$$

$$a^2 = c^2 - b^2$$

$$a^2 = 11^2 - 8^2$$

$$a^2 = 121 - 64$$

$$a^2 = 57$$

$$a = \sqrt{a^2} = \sqrt{57}$$

$$a = \sqrt{57} = 7.549834$$