

$$A = (0, 0, 0) \quad B = (3, 4, 0) \quad C = (3t, 4t, 1+t)$$

$$\vec{AB} = (3, 4, 0)$$

$$\vec{AC} = (3t, 4t, 1+t) \leftarrow$$

$$\cdot \angle BAC = \frac{\pi}{2} \Leftrightarrow \vec{AB} \cdot \vec{AC} = 0$$

$$9t + 16t + 0 = 0$$

$$t = 0$$

$$\underline{C_3 = (0, 0, 1)}$$

$$\cdot \angle ABC = \frac{\pi}{2} \Leftrightarrow \vec{BA} \cdot \vec{BC} = 0$$

$$(-3, -4, 0) \cdot (3t-3, 4t-4, 1+t) = 0$$

$$-9t + 9 - 16t + 16 = 0 \quad \rightarrow C_2 = (3, 4, 2)$$

$$-25t + 25 = 0 \quad t = 1$$

$$\cdot \angle BCA = \frac{\pi}{2} \Leftrightarrow \vec{BC} \cdot \vec{CA} = 0$$

$$\underline{(3t-3, 4t-4, 1+t)} \cdot \underline{(-3t, -4t, -1-t)} = 0$$

$$\dots \quad -9t^2 + 9t + \dots = 0$$

(more by 0, 1, 2 usw.)

