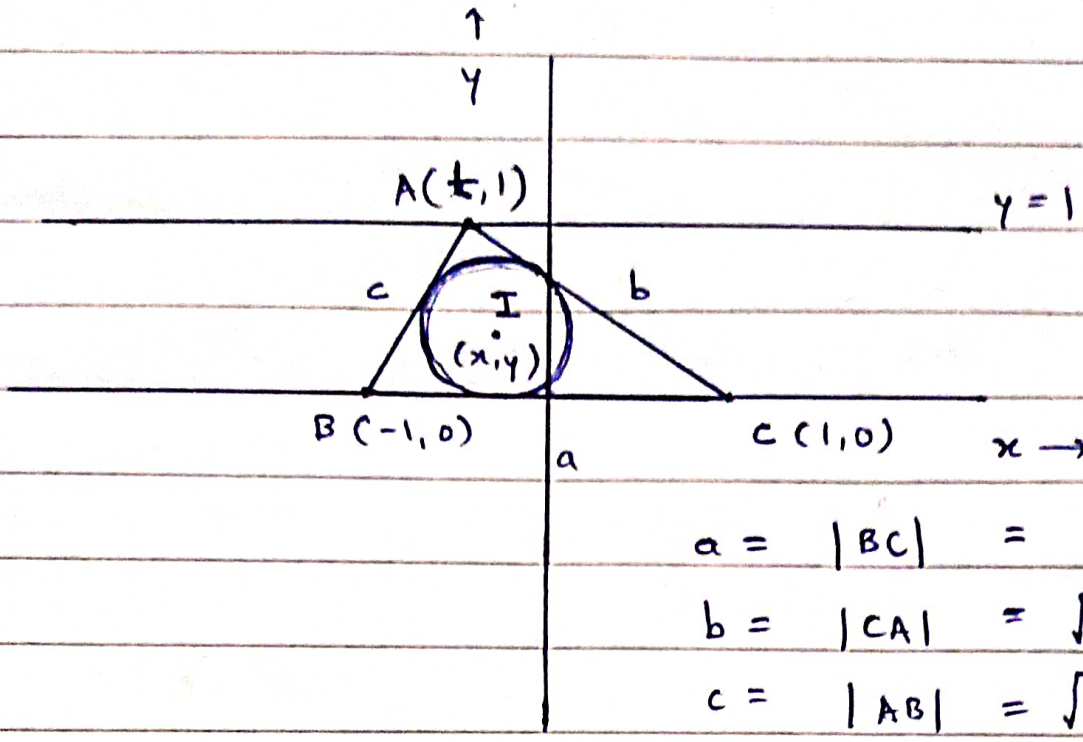

$$a = |BC| = 2$$

$$b = |CA| = \sqrt{1 + (t-1)^2}$$

$$c = |AB| = \sqrt{1 + (t+1)^2}$$

So,

$$x = \frac{aA_x + bB_x + cC_x}{a + b + c}$$

or

$$x = \frac{2t - \sqrt{1+(t-1)^2} + \sqrt{1+(t+1)^2}}{2 + \sqrt{1+(t-1)^2} + \sqrt{1+(t+1)^2}}$$

and

$$y = \frac{aA_y + bB_y + cC_y}{a + b + c}$$

or

$$y = \frac{2}{2 + \sqrt{1+(t-1)^2} + \sqrt{1+(t+1)^2}}$$

where

t = parametric variable denoting the x-coordinate of A.