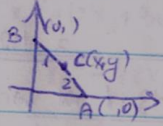


4.5

9



$$x = \frac{2Bx + Ax}{3} = \frac{0 + Ax}{3} \rightarrow Ax = 3x \quad A(3x, 0)$$

$$y = \frac{2By + Ay}{3} = \frac{2By + 0}{3} \rightarrow By = 1.5y \quad B(0, 1.5y)$$

$$AB = 3 = \sqrt{(3x)^2 + (1.5y)^2} \Rightarrow 9 = 9x^2 + \frac{9y^2}{4} \rightarrow \underline{\underline{\frac{4}{5}x^2 + y^2}}$$