$F = G\left(\frac{m_1 m_2}{r^2}\right)\ G = 6.674x10^{-11}$

$d = \sqrt{(x2 - x1)^2 + (y2 - y1)^2}$

$F = 6.674 * 10^{-11}\left(\frac{50*20}{70.174^2}\right) = 1.33 * 10^{-11}$

$F \rightarrow ma \quad \text{or} \quad a = \left(\frac{F}{m}\right)$

$v_i = v_0 + at$