$$V = 10$$

$$\theta = 75°$$

$$a = 50$$

$$\rho$$

$$\frac{d V_t}{dt} = a_t = \boxed{a\cos\theta}$$

$$a_n = \frac{V^2}{\rho}$$

$$\rho = \frac{V^2}{a_n} = \boxed{\frac{V^2}{a\sin\theta}}$$