

2/17

$$v = 20e^{-t/10}$$

$$a = \dot{v} = -2e^{-t/10}$$

$$\text{When } t = 10 \text{ sec, } a = -2e^{-10/10} = \underline{-0.736 \text{ ft/sec}^2}$$

$$\text{From } v = \frac{ds}{dt} = 20e^{-t/10},$$

$$\int_0^s ds = \int_0^{10} 20e^{-t/10} dt$$

$$s = -200e^{-t/10} \Big|_0^{10} = \underline{126.4 \text{ ft}}$$

