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$$a = -kv^{1/2} = \frac{dv}{dt}$$
$$-\int_0^t k dt = \int_{v_0}^v \frac{dv}{v^{1/2}} \Rightarrow \underline{v = \left(v_0^{1/2} - \frac{1}{2}kt\right)^2}$$

$$\text{Numbers: } v = \left(7^{1/2} - \frac{1}{2}(0.2)(2)\right)^2 = \underline{5.98 \text{ m/s}}$$

$$\text{Also, } -kv^{1/2} = v \frac{dv}{ds}$$

$$-\int_{s_0}^s k ds = \int v^{1/2} dv \Rightarrow \underline{v = \left[v_0^{3/2} - \frac{3}{2}k(s-s_0)\right]^{2/3}}$$

$$\text{Numbers: } v = \left[7^{3/2} - \frac{3}{2}(0.2)(3-1)\right]^{2/3} = \underline{6.85 \text{ m/s}}$$