P#28

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$v_i = 40\ m/s$
$t = 5.0\ sec$
$v_f = 0\ m/s$

a) $v_f = v_i + a \cdot t$

$0\ m/s = 40\ m/s + a \cdot (5\ sec)$

$\boxed{a = -8.0\ m/s^2}$

b) $d = v_0 \cdot t + \frac{1}{2} \cdot a \cdot t^2$

$= (40\ m/s) \cdot (5\ sec) + \frac{1}{2}(-8\ m/s^2)(5\ sec)^2$

$\boxed{d = 100\ m}$