

Finding Equations

For each of the following, choose an equation and solve for the missing variable.

1. $v_i = 0 \text{ m/s}$, $a = 2.5 \text{ m/s}^2$, $t = 3.5 \text{ s}$, $v_f = ?$

2. $\Delta d = 5000 \text{ m}$, $v_i = 3.0 \text{ m/s}$, $v_f = 17 \text{ m/s}$, $a = ?$

3. $\Delta d = 30 \text{ m}$, $\Delta t = 1.4 \text{ s}$, $a = 6.2 \text{ m/s}^2$, $v_i = ?$

4. $\Delta d = 365.5 \text{ m}$, $v_f = 5.0 \text{ m/s}$, $v_i = 6.59 \text{ m/s}$, $\Delta t = ?$

5. $\Delta d = 65.8 \text{ m}$, $v_f = 3.82 \text{ m/s}$, $a = -0.53 \text{ m/s}^2$, $\Delta t = ?$

6. $v_f = 7.65 \text{ m/s}$, $v_i = 3.72 \text{ m/s}$, $\Delta t = 8.3 \text{ s}$, $\Delta d = ?$

7. $v_f = 9.75 \text{ m/s}$, $v_i = 20.3 \text{ m/s}$, $a = -2.56 \text{ m/s}^2$, $\Delta d = ?$