High School Physical Science Reference Sheet

Equations:

\[ \Delta x = x_f - x_i \]

\[ v_{avg} = \frac{\Delta x}{\Delta t} = \frac{x_f - x_i}{t_f - t_i} \]

\[ a_{avg} = \frac{\Delta v}{\Delta t} = \frac{v_f - v_i}{t_f - t_i} \]

\[ F_{net} = ma \]

\[ F_g = mg \]

\[ E_k = \frac{1}{2}mv^2 \]

\[ E_g = mgh \]

\[ W = F\Delta x \]

Constant:

\[ g = 10 \text{ m/s}^2 = 10 \text{ N/kg} \]

Variables and Symbols:

\[ \Delta = \text{change in a value (final - initial)} \]

\[ a = \text{acceleration} \]

\[ a_{avg} = \text{average acceleration} \]

\[ E_g = \text{gravitational potential energy} \]

\[ E_k = \text{kinetic energy} \]

\[ F_{net} = \text{net force} \]

\[ F_g = \text{gravitational force} \]

\[ g = \text{gravitational field strength} \]

\[ h = \text{height} \]

\[ m = \text{mass} \]

\[ t = \text{time} \]

\[ v = \text{speed} \]

\[ v = \text{velocity} \]

\[ v_{avg} = \text{average velocity} \]

\[ W = \text{work} \]

\[ x = \text{position} \]