

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:

Δ = change in a value (final – initial)

a = acceleration

a_{avg} = average acceleration

E_g = gravitational potential energy

E_k = kinetic energy

F_{net} = net force

F_g = gravitational force

g = gravitational field strength

h = height

m = mass

t = time

v = speed

v = velocity

v_{avg} = average velocity

W = work

x = position