Physics 250 Chapters 2 and 3 Test Equation Sheet

Velocity and acceleration: $\overrightarrow{v_{av}} = \frac{\overrightarrow{\Delta r}}{\Delta t}$ $\overrightarrow{a_{av}} = \frac{\overrightarrow{\Delta v}}{\Delta t}$

Constant velocity: $x_B = x_A + v_{AB}\Delta t_{AB}$

Constant acceleration: $v_B = v_A + a_{AB}\Delta t_{AB}$

$$x_B = x_A + v_A\Delta t_{AB} + \frac{a_{AB}}{2}\Delta t_{AB}{}^2$$

$$v_B^2 = v_A^2 + 2a_{AB}\Delta x_{AB}$$

$$x_B = x_A + \left(\frac{v_A + v_B}{2}\right)\Delta t_{AB}$$

Circular motion: $a_{rad} = {}^{v^2}/_{r}$

Constants: $g = 9.80\ m/s^2$