

THE FAB FIVE

$$1). \quad \mathbf{v_{average} = \Delta s / \Delta t}$$

$$2). \quad \mathbf{a = (v_{final} - v_{initial}) / t}$$

$$3). \quad \mathbf{v_{average} = (v_{final} + v_{initial}) / 2}$$

$$4). \quad \mathbf{s = v_i t + \frac{1}{2} a t^2}$$

$$5). \quad \mathbf{v_{final}^2 - v_{initial}^2 = 2 a \Delta s}$$

NOTE: Often $v_i = 0$ so the formulas shorten up fast.

ALSO NOTE: The last three #3, 4, and 5 need a uniform acceleration (no jerks).