Formulae:

Distance between 2 points:
$d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$: this is the Pythagorean Theorem.

Midpoint: $m = (\frac{(x_1+x_2)}{2}, \frac{(y_1+y_2)}{2})$

Slope: $\frac{(y_1-y_2)}{(x_1-x_2)} = m$

Perpendicular lines: $m_1 = -\frac{1}{m_2}$
Parallel lines: $m_1 = m_2$
Vertical line: $x = constant$
Horizontal line: $y = constant$
Inverse functions: $\left(f\left(f^{-1}(x)\right)\right) = x$
Exponential: $e^x = b$ implies $\ln(b) = x$
Limit definition of derivative:

$$\lim_{\Delta x \to 0} \frac{f(x + \Delta x) - f(x)}{\Delta x} = f'(x)$$

Average rate of change: $\frac{f(b)-f(a)}{b-a}$

For related rates or optimization problems:
Pythagorean theorem: $a^2 + b^2 = c^2$
Circle: $A = \pi r^2, P = 2\pi r$
Rectangle: $A = wl, P = 2l + 2w$
Box (closed top): $SA = 2wl + 2wh + 2hl, V = wlh$
Cylinder: $SA = 2\pi r^2 + 2\pi rh, V = \pi r^2 h$

Differentiation rules:

$$\frac{d}{dx}(f(x)^n) = n\big(f(x)\big)^{n-1} f'(x)$$
$$\frac{d}{dx}\left(e^{f(x)}\right) = e^{f(x)} f'(x)$$
$$\frac{d}{dx}(\ln(f(x))) = \frac{1}{f(x)} f'(x)$$
$$\frac{d}{dx}\left(\frac{f(x)}{g(x)}\right) = \frac{f'g - g'f}{g^2}$$
$$\frac{d}{dx}\big(f(x)g(x)\big) = f'g + g'f$$
$$\frac{d}{dx}(constant) = 0$$

Integration by parts:
$\int fg'dx = fg - \int f'gdx$
(but I will give this one to you on the final)