

MATH 1324 FORMULAS

$$Ax + By = C$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$y = mx + b$$

$$y - y_1 = m(x - x_1)$$

$$p(x) = m - nx$$

$$C(x) = a + bx$$

$$R(x) = xp$$

$$P(x) = R(x) - C(x)$$

$$I = Prt$$

$$A = P(1 + rt)$$

$$A = P\left(1 + \frac{r}{m}\right)^{mt}$$

$$A = Pe^{rt}$$

$$APY = \left(1 + \frac{r}{m}\right)^m - 1$$

$$APY = e^r - 1$$

$$i = \frac{r}{m}, n = mt$$

$$A = P(1 + i)^n$$

$$P = \frac{A}{(1 + i)^n}$$

$$FV = PMT \frac{(1 + i)^n - 1}{i}$$

$$PMT = FV \frac{i}{(1 + i)^n - 1}$$

$$PV = PMT \frac{1 - (1 + i)^{-n}}{i}$$

$$PMT = PV \frac{i}{1 - (1 + i)^{-n}}$$

$$f(x) = ax^2 + bx + c$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$f(x) = a(x - h)^2 + k$$

$$h = \frac{-b}{2a}, k = f(h)$$

$$f(x) = a_n x^n + a_{n-1} x^{n-1} + \dots + a_1 x^1 + a_0$$

$$f(x) = \frac{n(x)}{d(x)}$$

$$f(x) = b^x$$

$$y = \log_b x \leftrightarrow x = b^y$$

$$y = \ln x \leftrightarrow x = e^y$$

$$\left[\begin{array}{cc|c} a_{11} & a_{12} & k_1 \\ a_{21} & a_{22} & k_2 \end{array} \right] \leftrightarrow \begin{array}{l} a_{11}x_1 + a_{12}x_2 = k_1 \\ a_{21}x_1 + a_{22}x_2 = k_2 \end{array}$$

$$[a_1 \quad a_2 \quad \dots \quad a_n] \begin{bmatrix} b_1 \\ b_2 \\ \vdots \\ b_n \end{bmatrix} = [a_1 b_1 + a_2 b_2 + \dots + a_n b_n]$$