Formulae for the Exam

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

$$\frac{\sin(A)}{a} = \frac{\sin(B)}{b} = \frac{\sin(C)}{c} \qquad a^2 = b^2 + c^2 - 2bc\cos(A)$$

$$\frac{a}{\sin(A)} = \frac{b}{\sin(B)} = \frac{c}{\sin(C)} \qquad A = \cos^{-1}\left(\frac{b^2 + c^2 - a^2}{2bc}\right)$$

$$A(t) = A_0(1+r)^n \qquad A(t) = A_0(1-r)^n \qquad A(t) = A_0(2)^{\frac{t}{D}} \qquad A(t) = A_0\left(\frac{1}{2}\right)^{\frac{t}{h}}$$

$$t_1 = a,\ \ t_n = t_{n-1} + d \qquad t_1 = a,\ \ t_n = t_{n-1} \times r$$

$$t_n = a + (n-1)d \qquad t_n = a \times r^{n-1}$$

$$S_n \frac{n(t_1 + t_n)}{2} \qquad S_n = \frac{t_{n+1} - t_1}{(r-1)}$$

$$S_n = \frac{n(2a + (n-1)d)}{2} \qquad S_n = \frac{a(r^n - 1)}{(r-1)}$$

$$I = P\,rt \qquad A = P(1+rt)$$

$$A = P(1+i)^n \qquad P = \frac{A}{(1+i)^n} \qquad FV = \frac{R[(1+i)^n - 1]}{i} \qquad PV = \frac{R[1-(1+i)^{-n}]}{i}$$