

Math 1090-1
Final Equation Sheet

The following is a list of the equations you will be given on the final exam.
Make sure you know when and how to use each equation.

$$I = Prt$$

$$S = R + I$$

$$a_n = a_{n-1} + d, n > 1$$

$$a_n = a_1 + (n - 1)d$$

$$S_n = \frac{n}{2}(a_1 + a_n)$$

$$S = P(1 + r)^n$$

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

$$S = Pe^{rt}$$

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

$$APY = e^r - 1$$

$$a_n = ra_{n-1}$$

$$a_n = a_1 r^{n-1}$$

$$S_n = \frac{a_1(1-r^n)}{1-r}$$

$$S = R \left[\frac{(1+i)^n - 1}{i} \right]$$

$$S_{due} = R \left[\frac{(1+i)^n - 1}{i} \right] (1 + i)$$

$$A_n = R \left[\frac{1 - (1+i)^{-n}}{i} \right]$$

$$A_{(n,due)} = R \left[\frac{1 - (1+i)^{-n}}{i} \right] (1 + i)$$

$$A_{(n,k)} = R \left[\frac{1 - (1+i)^{-n}}{i} \right] (a + i)^{-k}$$

$$R = A_n \left[\frac{i}{1 - (1+i)^{-n}} \right]$$

$$A_{n-k} = R \left[\frac{1 - (1+i)^{-(n-k)}}{i} \right]$$