Math 17 Exam 2 - Formulas

$$I = Prt$$
$$F = P(1 + rt)$$
$$F = P(1 + r)^t$$
$$F = P(1 + p)^T$$

$$L = \frac{p}{100} \cdot N, \quad \text{where } p \text{ is the desired percentile}$$
$$\text{percentile} = d_{L^+}, \quad \text{where } L^+ = L \text{ rounded up} \qquad \text{(if } L \text{ fractional)}$$
$$= \frac{d_L + d_{L+1}}{2} \qquad \text{(if } L \text{ whole)}$$
$$\text{Mean} = \frac{d_1 + \cdots + d_N}{N}$$
$$(\text{SD})^2 = \frac{(d_1 - \text{Mean})^2 + \cdots + (d_N - \text{Mean})^2}{N}$$
$$IQR = Q_3 - Q_1$$

$$P = \mu + \sigma \qquad \text{(upper)}$$
$$P' = \mu - \sigma \qquad \text{(lower)}$$
$$Q_3 = \mu + 0.675\sigma$$
$$Q_1 = \mu - 0.675\sigma$$
$$z = (x - \mu)/\sigma$$
$$x = \sigma z + \mu$$
$$68\text{–}95 - 99.7 \text{ rule}$$