

Math 1310 Tables, Rules and Formulas

p	~p
T	F
F	T

p	q	p ∧ q
T	T	T
T	F	F
F	T	F
F	F	F

p	q	p ∨ q
T	T	T
T	F	T
F	T	T
F	F	F

p	q	p → q
T	T	T
T	F	F
F	T	T
F	F	T

p	q	p ↔ q
T	T	T
T	F	F
F	T	F
F	F	T

$$p(E) = \frac{n(E)}{n(S)}$$

$$0 \leq p(S) \leq 1$$

$$p(E \cup F) = p(E) + p(F) - p(E \cap F)$$

$$p(E) + p(E') = 1$$

$$o(E) = n(E) : n(E')$$

$${}_n P_r = \frac{n!}{(n-r)!}$$

$${}_n C_r = \frac{n!}{(n-r)!r!}$$

$$\bar{x} = \frac{\Sigma x}{n}$$

$$L = \frac{n+1}{2}$$

$$s^2 = \frac{\Sigma(x - \bar{x})^2}{n-1}$$

$$s = \sqrt{\text{variance}}$$

$$I = Prt$$

$$FV = P(1 + rt) \text{ or } P = \frac{FV}{1+rt}$$

$$i = \frac{r}{\text{number of compounding periods per year}}$$

$$FV = P(1 + i)^n \text{ or } P = \frac{FV}{(1+i)^n}$$

$$FV(\text{ord}) = pymt \frac{(1+i)^n - 1}{i} \text{ or}$$

$$pymt = \frac{i \cdot FV(\text{ord})}{(1+i)^n - 1}$$