

Formula Sheet – Test 1 – STAT 515

$$s^2 = \frac{\sum_{i=1}^n X_i^2 - \frac{(\sum_{i=1}^n X_i)^2}{n}}{n-1}$$

$$1 - \frac{1}{k^2}$$

$$z = \frac{x - \bar{x}}{s}$$

or

$$z = \frac{x - \mu}{\sigma}$$

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

$$P(A|B) = \frac{P(A \cap B)}{P(B)}$$

$$P(A \cap B) = P(B)P(A|B)$$

or

$$P(A \cap B) = P(A)P(B|A)$$