

# FORMULAS PROVIDED FOR TEST 1 Business Statistics

SAMPLE MEAN:

- $$\bar{x} = \frac{\sum x}{n}$$

SAMPLE VARIANCE:

- $$S^2 = \frac{\sum (x - \bar{x})^2}{n-1} = \frac{SS(X)}{n-1}$$

$$= \frac{\left[ \sum x^2 - \frac{(\sum x)^2}{n} \right]}{n-1}$$

- STANDARD deviation:

$$S = \sqrt{S^2}$$

## PROBABILITY

- $P(A') = 1 - P(A)$

- $$P(A \text{ OR } B) = P(A) + P(B) - P(A \& B)$$

$$P(A \cup B) \qquad \qquad P(A \cap B)$$

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

OR

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

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