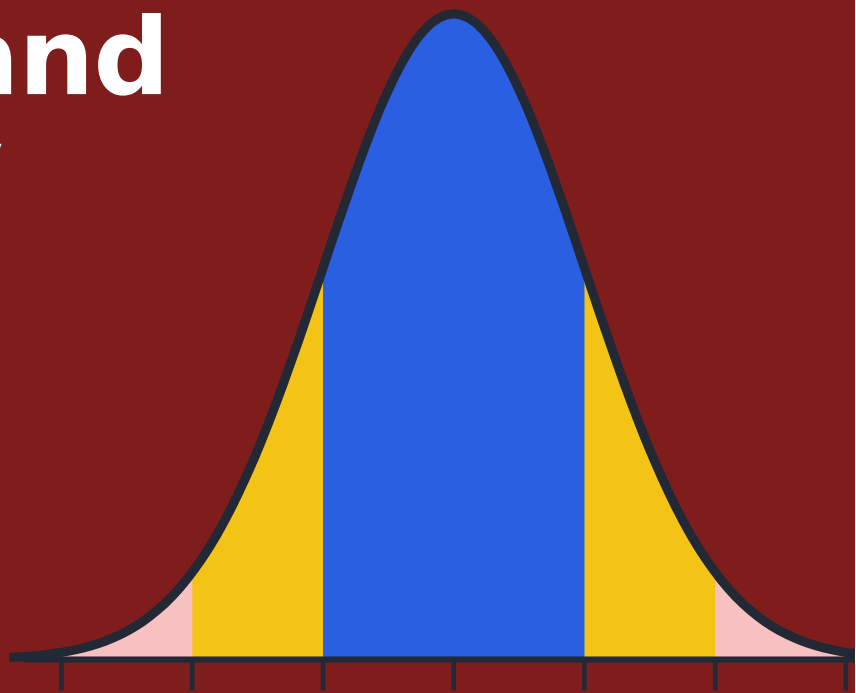


Statistics and probability



Interquartile range

B

$$IQR = Q_3 - Q_1$$

Mean ($n = \sum f_i$)

B

$$\bar{x} = \frac{\sum f_i x_i}{n}$$

Outliers

$$\backslash (x \text{ or } x > Q_3 + 1.5 IQR$$

Variance (s.d. σ)

$$\sigma^2 = \frac{\sum f(x-\mu)^2}{n} = \frac{\sum fx^2}{n} - \mu^2$$

Data $\times a$ then $+b$

$$\text{mean} \rightarrow a\bar{x} + b, \quad \text{s.d.} \rightarrow |a|\sigma$$

Probability

B

$$P(A) = \frac{n(A)}{n(U)}, \quad P(A) + P(A') = 1$$

Combined events

B

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

Mutually exclusive

B

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

B given in the exam. Learn the rest.