Task Statistics — Mostafa Abdelsattar

Q1. mean = $\frac{80}{7}$ = 11.42 · median = 12 · Range = 18 − 5 = 13

· mode → no mode

Q2. variance (assuming population) = $\frac{1}{7}[(5-11.42)^2 + (7-11.42)^2 + (9-11.42)^2 + (12-11.42)^2 + (14-11.42)^2 + (15-11.42)^2 + (18-11.42)^2]$

= 34.47

· std deviation = $\sqrt{34.47}$ = 5.87

· Coefficient of variation = $\frac{5.87}{11.42}$ = 51.4%

Q3. · mean : average of the data set

· median : the middle value in an ordered set (preferred when there are outliers)

· mode : most repeated element in a data set

· Salaries → median · Course grades → mean

· Car brands in a specific country → mode

Q4. weighted mean = $\frac{2*3 + 4*5 + 6*7 + 8*2}{3+5+7+2}$ = 4.94

$\sigma = \sqrt{\frac{1}{17}[(2-4.94)^2 + (4-4.94)^2 + (6-4.94)^2 + (8-4.94)^2}$

= 3.4466