### Calculate F Test for given 10, 20, 30, 40, 50 and 5,10,15, 20, 25.

\* F Test is calculated as ratio of variance of 2 given sets.

\* To Calculate variance, we need to calculate Mean and Standard Deviation for each set.

\* For Set 1:

Mean (M1) = (10 + 20 + 30 + 40 + 50)/5 = 30

Standard Deviation (SD1) = sqrt(((10-30)^2+(20-30)^2+(30-30)^2+(40-30)^2+(50-30)^2)/(5-1))

= sqrt((400+100+0+100+400)/4)

= sqrt(250)

= 15.8113

Variance (V1) = SD1^2 = (15.8113)^2 = 250

\* For Set 2:

Mean (M2) = (5 + 10 + 15 + 20 + 25)/5 = 15

Standard Deviation (SD2) = sqrt(((5-15)^2+(10-15)^2+(15-15)^2+(20-15)^2+(25-15)^2)/(5-1))

= sqrt((100+25+0+25+100)/4)

= sqrt(62.5)

= 7.9056

Variance (V2) = SD2^2 = (7.9056)^2 = 62.5

So the F Test value is V1/V2 = 250 / 62.5 = 4