$$MD_{AM} = \frac{\sum_{i=1}^{n} f_i |x_i - AM|}{\sum_{i=1}^{n} f_i}$$

$$MD_{Mo} = \frac{\sum_{i=1}^{n} f_i |x_i - Mo|}{\sum_{i=1}^{n} f_i}$$

$$MD_{Me} = \frac{\sum_{i=1}^{n} f_i |x_i - Me|}{\sum_{i=1}^{n} f_i}$$

Co-efficient of Mean Deviation is

$$CMD = \frac{MD_{Base}}{Base} \times 100\% \; ; \; Base = AM, Mo, Me$$

$$\sigma = \sqrt{\frac{\sum_{i=1}^{n} f_i x_i^2}{\sum_{i=1}^{n} f_i} - \left(\frac{\sum_{i=1}^{n} f_i x_i}{\sum_{i=1}^{n} f_i}\right)^2}$$

Co-efficient of Standard Deviation is $\quad CSD = \frac{SD}{AM} \times 100\%$

Interquartile Range is $\quad IQR = Q_3 - Q_1$

Co-efficient of Interquartile Range $\quad CIQR = \frac{Q_3 - Q_1}{Q_3 + Q_1} \times 100\%$

Original Class	Class Marks (x)	Frequency (f)	f*ABS(x - AM)	f*ABS(x - Mode)	f*ABS(x - Median)	f*x	f*x^2	u = (x - 63.5)/4	f*u	f*u^2	z = (x - AM)/SD
53.5-57.5	55.5	6	53.28	69.24	57.84	333	18481.5	-2	-12	24	-1.770864493
57.5-61.5	59.5	9	43.92	67.86	50.76	535.5	31862.25	-1	-9	9	-0.9731777844
61.5-65.5	63.5	11	9.68	38.94	18.04	698.5	44354.75	0	0	0	-0.1754910759
65.5-69.5	67.5	16	49.92	7.36	37.76	1080	72900	1	16	16	0.6221956327
69.5-73.5	71.5	8	56.96	35.68	50.88	572	40898	2	16	32	1.419882341
	Sum	50	213.76	219.08	215.28	3219	208496.5		11	81	

Arithmatic mean = 64.38
Mode = 67.04
Median = 65.14
MD (AM) = 4.2752
MD (Mode) = 4.3816
MD (Median) = 4.3056
Co-efficient of MD (AM) =   6.64%   IQR = Q3-Q1
Co-efficient of MD (Mode) =   6.54%   CO-IQR =
Co-efficient of MD (Median) = 6.61%   Z-Score

SD (Direct) =   5.014538862
SD (Code) =   5.014538862

a = 63.5, h = 4

Co-efficient of SD =   7.79%