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1915M405 (215)

MICHAELSONICS EXPLAINATIONS.

STAT 132.

Solution

<u>D</u>	<u>C.I</u>	f_i	x	$f_i \cdot x$	$x - \bar{x}$	$ x - \bar{x} ^2$	$f_i(x - \bar{x})^2$
	1-5	0	3	0	14.83	219.93	0
	6-10	7	8	56	9.83	16.63	676.41
	11-15	10	13	130	4.85	23.33	233.30
	16-20	2	18	36	0.17	2.03	0.06
	21-25	1	23	23	5.17	26.73	26.73
	26-30	5	28	140	10.17	3.43	517.15
	31-35	4	33	132	15.17	230.13	920.52
		29		517			2374.17

$$\begin{aligned} \text{i) mean}(x_i) &= \frac{\sum f_i x}{\sum f_i} \\ &= \frac{517}{29} \\ &= 17.83 \end{aligned}$$

$$\begin{aligned} \text{s.D} &= \sqrt{\frac{\sum f_i (x - \bar{x})^2}{\sum f_i}} \\ &= \sqrt{\frac{2374.17}{29}} = \sqrt{81.87} = 9.05 \end{aligned}$$

$$C \cdot v_2 = \frac{S \cdot D_1}{v_1} \times 100$$

$$= \frac{9.05}{17.83} \times 100$$

$$= 50.76$$