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ID = 20-92006-1

Serial: 08

Age: 23, 22, 21, 22, 21, 20, 21, 21, 22, 22, 22, 22, 21, 22, 22

$$\sum \text{Age} = 324$$

$$n = 15$$

Arithmetic mean:

$$AM = \frac{\sum N}{n} = \frac{324}{15} = 21.6$$

Geometric mean:

$$GM = (\prod n)^{\frac{1}{n}} = (23 \times 22 \times 21 \times 22 \times 21 \times 20 \times 21 \times 21 \times 22 \times 22 \times 22 \times 22 \times 21 \times 22 \times 22)^{\frac{1}{15}}$$

$$= (1.03 \times 10^{20})^{\frac{1}{15}}$$

$$= 21.59$$

Harmonic mean:  $\frac{n}{\sum \frac{1}{x}}$

$$\therefore \sum \frac{1}{x} = \frac{73873}{106260}$$

$$= \frac{n}{\sum \frac{1}{x}} = \frac{15}{\frac{73873}{106260}} = 21.58$$



Median: 20, 21, 21, 21, 21, 21, 22, 22, 22, 22, 22,  
22, 22, 22, 22, 23

Median = 22

mode:

mode = 22



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Sl. No.	<del>17-35338-3</del>	$x_i$	$\bar{x}$	$x_i - \bar{x}$	$ x_i - \bar{x} $	$(x_i - \bar{x})^2$
1	17-35338-3	23	21.6	1.4	1.4	1.96
2	18-36264-1	22	21.6	0.4	0.4	0.16
3	19-41041-2	22	21.6	0.4	0.4	0.16
4	20-41257-1	21	21.6	-0.6	0.6	0.36
5	20-42006-1	20	21.6	-1.6	1.6	2.56
6	20-42092-4	21	21.6	-0.6	0.6	0.36
7	20-42107-1	21	21.6	-0.6	0.6	0.36
8	20-42439-4	22	21.6	0.4	0.4	0.16
9	20-42457-1	22	21.6	0.4	0.4	0.16
10	20-42077-4	22	21.6	0.4	0.4	0.16
11	18-363031	21	21.6	-0.6	0.6	0.36
12	20-42288-1	22	21.6	0.4	0.4	0.16
13	20-42621-4	21	21.6	-0.6	0.6	0.36
14	20-42668-1	22	21.6	0.4	0.4	0.16
15	20-42669-1 42669	22	21.6	0.4	0.4	0.16
Total		324			7.2	7.6



Mean deviation:

$$MD: \frac{1}{n} \sum_{i=1}^n |x_i - \bar{x}| = \frac{9.2}{15} = 0.613$$

Variance:

$$s^2 = \frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2 = \frac{7.6}{15} = 0.51$$

Standard deviation:

$$SD = s = \sqrt{\text{variance}} = \sqrt{0.51} = \cancel{0.719} = 0.719$$

coefficient of variation:

$$\begin{aligned} CV &= \frac{s}{\bar{x}} \times 100\% \\ &= \frac{0.719}{21.6} \times 100\% \\ &= 3.30\% \end{aligned}$$

~~$\frac{0.748}{21.6} \times 100\% = 3.46\%$~~