

Statistics - Class XI

Related Questions with Solutions

Questions

Question: 01

The mean and the median of the following ten numbers in increasing order 10, 22, 26, 29, 34, x , 42, 67, 70, y are 42 and 35 respectively, then

$\frac{y}{x}$ is equal to

- A. $\frac{9}{4}$
- B. $\frac{7}{2}$
- C. $\frac{7}{3}$
- D. $\frac{8}{3}$

Solutions

Solution: 01

Given, mean = 42

$$\Rightarrow \frac{10 + 22 + 26 + 29 + 34 + x + 42 + 67 + 70 + y}{10} = 42$$

$$\Rightarrow 300 + x + y = 420 \Rightarrow x + y = 120 \dots\dots\dots [i]$$

$$\text{Also, median} = 35 \Rightarrow \frac{34 + x}{2} = 35 \Rightarrow x = 36$$

From [i], we get $y = 120 - 36 = 84$

$$\text{Now, } \frac{y}{x} = \frac{84}{36} = \frac{7}{3}$$

Correct Options

Answer:01

Correct Options: C