

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:

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- (a) $9/4$
- (b) $7/2$
- (c) $8/3$
- (d) $7/3$

(d) Ten numbers in increasing order are
10, 22, 26, 29, 34, x , 42, 67, 70, y

$$\text{Mean} = \frac{\sum x_i}{n} = \frac{x + y + 300}{10} = 42 \Rightarrow x + y = 120$$

$$\text{Median} = \frac{T_5 + T_6}{2} = 35 = \frac{34 + x}{2} \Rightarrow x = 36 \text{ and } y = 84$$

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