FREE COURSE
FOR BBA BBM BMS BCA

DAY 23

MATHS

AVERAGES

MAH-CET 2024
VISION ACADEMY
FOR BBA/BBM/BMS/BCA

INVINCIBLE 2.0
MAH CET BBA BCA
& CUET UG GT 2025

VISION ACADEMY

LEARN BETTER

YOUR CAREER GUIDE

JOIN US ON WHATSAPP

JOIN US ON TELEGRAM

FOR MAH CET FOR BBA BBM BMS BCA & CUET UG PAPER 3

GENERAL TEST

MAH-CET 2024
VISION ACADEMY
FOR BBA/BBM/BMS/BCA

Average = $\frac{\text{total of all observation}}{\text{total no. of observation.}}$

observation. ($n = 6$)

1 overs : 3, 6, 1, 0, 4, 4

$$\text{Average} = \frac{3+6+1+0+4+4}{6} = \frac{18}{6} = \boxed{3}$$

Average run scored on every ball $= \boxed{3}$

MAH-CET 2024
VISION ACADEMY
FOR BBA/BBM/BMS/BCA

$372 + 354 - 660$

$= 726 - 660$

$= \boxed{66}$

$\boxed{n = 11}$

Average = 60

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

59 | 62

The average of 11 results is 60 marks. If the average of first six results is 59 marks and that of the last six is 62 marks, then the sixth result contains

(a) 65 marks (b) 66 marks

(c) 60 marks (d) 61 marks

$\text{Average} = \frac{\text{total}}{n} \Rightarrow 60 = \frac{\text{total}}{11} \Rightarrow \text{total}(11) = 660$

$\text{Average}_{(f_6)} = \frac{\text{total}}{n} \Rightarrow 59 = \frac{\text{total}}{6} \Rightarrow \text{total}(f_6) = 354$

$\text{Average}(16) = \frac{\text{total}}{n} \Rightarrow 62 = \frac{\text{total}}{6} \Rightarrow \text{total}(16) = 372$

$$\frac{10+12+16+20+p+26}{6} = 17$$

The average of 10, 12, 16, 20, p and 26 is 17. Find the value of p.

(a) 17 (b) 18 (c) 15 (d) 16

$$84 + p = 102$$

$$p = 102 - 84$$

$$p = 18$$

$$\frac{\square+\square+\square}{3} = 135$$

$$\therefore \boxed{x} + \boxed{y} + \boxed{195} = 405$$

The average of three numbers is 135. The largest number is 195 and the difference between the other two is 20. The smallest number is

(a) 65

(b) 95

(c) 105

(d) 115

$x - y = 20$

$x = 20 + y$

115

$20 + y + y + 195 = 405$

$2y + 215 = 405$

$2y = 190$

$y = 95$

$$\frac{\text{total}}{12+x} = 6000$$

$A_{(12)} = 14000$

$$14000 = \frac{\text{total}_{(12)}}{12}$$

The average wage of workers in a factory is Rs.6000. There are 12 officers having an average wage of Rs.14000, while the average wage of the remaining persons is Rs.5600, the number of the workers is that factory is

(a) 242 (b) 252 (c) 240 (d) 230

$168000 = \text{total}_{12}$

$5600 = \frac{\text{total}_{(x)}}{x}$

$\text{total}_{(x)} = 5600x$

$$\frac{168000 + 5600x}{12+x} = 6000$$

$168000 + 5600x = 72000 + 6000x$

$96000 = 400x$

$x = \frac{96000}{400}$

$x = \frac{240}{12}$

$x = 240$

252

Run rate = 3.2

10 overs run = run rate × 10
= 3.2 × 10 = 32

In the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 rus?

(a) 6.25
(b) 6.5
(c) 6.75
(d) 7

$\frac{250}{40} = 6.25$

32
250

MAH-CET 2024
VISION ACADEMY
FOR BBA/BBM/BMS/BCA

Increase = 262500 − 175000
= 87500

period of 10 years

The population of a town increased from 175000 to 262500 in a decade. The average per cent increase of population per year is

(a) 4.37%

(b) 5%

(c) 6%

(d) 8.75%

$\frac{87500}{175000} \times 100$

50%

50% / 10 = 5%

50% last 10 years

MAH-CET 2024
VISION ACADEMY
FOR BBA/BBM/BMS/BCA

$A_7 = \frac{t_7}{7} \Rightarrow 75 \times 7 = t_7$

$525 = t_7$

The average of marks of a student in 7 subjects is 75. His average in 6 subjects excluding Science is 72. How many marks did he get in Science?

(a) 72

(b) 90

(c) 93

(d) None of these

$A_6 = \frac{t_6}{6}$

$72 \times 6 = t_6$

$432 = t_6$

$t_7 - t_6$

$= 525 - 432$

93

MAH-CET 2024 VISION ACADEMY FOR BBA/BBM/BMS/BCA

$t_{48} = 1800$

$t_{50} = 50 \times 38$

$= 1900 - 45 - 55$

The average of 50 numbers is 38. If two numbers, namely 45 and 55 are discarded, the average of remaining numbers is

(a) 36.5 (b) 37 (c) 37.5 (d) 37.52

$\frac{1800}{48 \times 5 = 240}$

144

360

336

240

37.5

336

MAH-CET 2024
VISION ACADEMY
FOR BBA/BBM/BMS/BCA

$3+6+9+12+15$

$\frac{45}{5} = 9$

The average of first five multiple of 3 is

(a) 3 (b) 9 (c) 12 (d) 15

MAH-CET 2024
VISION ACADEMY
FOR BBA/BBM/BMS/BCA

$t_{11} = 11 \times A_{11} = 11 \times 60 = 660$

The average of 11 observations is 60. If the average of first five observations is 58 and that of last five is 56, the sixth observation is

(a) 90
(b) 110
(c) 85
(d) 100

$t_5 = 5 \times 58 = 290$

$t_{15} = 5 \times 56 = 280$

570

90

VISION ACADEMY

LEARN BETTER

YOUR CAREER GUIDE

JOIN US ON WHATSAPP

SUBS

JOIN US ON TELEGRAM

FOR MAH CET FOR BBA BBM BMS BCA & CUET UG PAPER 3

GENERAL TEST