



THE MATH HUB

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Average / Arithmetic Mean MCQs

100 FULLY SOLVED MCQs

PPSC, FPSC & ONE PAPER EXAMS

NTS • CSS MPT • PMS • Government Job Tests

Fast Methods • Four Options • Immediate Mathematical Solution

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PART 3 - AVERAGE / ARITHMETIC MEAN | 100 SOLVED MCQs**Fast Average Foundation****Core formula**

$$\text{Average} = \frac{\text{Sum of values}}{\text{Number of values}}$$

$$\text{Sum} = \text{Average} \times \text{Number}$$

Missing value

$$\text{Missing} = \text{Required total} - \text{Known total}$$

Combined average

$$\bar{x} = \frac{n_1\bar{x}_1 + n_2\bar{x}_2}{n_1 + n_2}$$

Speed shortcuts For equally spaced values,

$$\text{Average} = \frac{\text{First} + \text{Last}}{2}$$

If every value changes by k , the average changes by k .

Replacement shortcut If one value a is replaced by b in n values,

$$\text{New average} = \text{Old average} + \frac{b - a}{n}$$

Exam timing Use totals only when necessary. For consecutive or equally spaced values, take the middle value or $\frac{\text{first} + \text{last}}{2}$ immediately.

Average / Arithmetic Mean - 100 Fully Solved MCQs

MCQ 1

Find the average of 12, 15, 18, 21, 24.

- A. 16 B. 18
C. 20 D. 22

Solution

$$\text{Sum} = 12 + 15 + 18 + 21 + 24 = 90$$

$$\text{Number of values} = 5$$

$$\text{Average} = \frac{90}{5} = 18$$

Final Answer

18 — Option B

MCQ 2

Find the average of 8, 10, 12, 14.

- A. 10 B. 11
C. 12 D. 13

Solution

$$\text{Sum} = 8 + 10 + 12 + 14 = 44$$

$$\text{Average} = \frac{44}{4} = 11$$

Final Answer

11 — Option B

MCQ 3

Find the average of 25, 30, 35.

- A. 28 B. 30
C. 32 D. 35

Solution

$$\text{Sum} = 25 + 30 + 35 = 90$$

$$\text{Average} = \frac{90}{3} = 30$$

Final Answer

30 — Option B

MCQ 4

Find the average of 7, 13, 19, 25, 31.

- A. 17 B. 18
C. 19 D. 20

Solution

$$\text{Sum} = 7 + 13 + 19 + 25 + 31 = 95$$

$$\text{Average} = \frac{95}{5} = 19$$

Final Answer

19 — Option C

MCQ 5

A student scores 65, 72, 80, 68, 75 in five tests. Find the average score.

- A. 70 B. 71
C. 72 D. 73

Common one-paper pattern; values independently constructed.

Solution

$$\text{Total} = 65 + 72 + 80 + 68 + 75 = 360$$

$$\text{Average} = \frac{360}{5} = 72$$

Final Answer

72 — Option C

MCQ 6

Find the average of 14, 16, 18, 20, 22, 24.

- A. 18 B. 19
C. 20 D. 21

Solution

$$\text{Sum} = 14 + 16 + 18 + 20 + 22 + 24 = 114$$

$$\text{Average} = \frac{114}{6} = 19$$

Final Answer

19 — Option B

MCQ 7

Find the average of 2.5, 3.5, 4.5, 5.5.

- A. 3.5 B. 4
C. 4.5 D. 5

Solution

$$\text{Sum} = 2.5 + 3.5 + 4.5 + 5.5 = 16$$

$$\text{Average} = \frac{16}{4} = 4$$

Final Answer

4 — Option B

MCQ 8Find the average of $\frac{1}{2}, \frac{3}{4}, 1$.

- A. $\frac{2}{3}$ B. $\frac{3}{4}$
C. $\frac{5}{6}$ D. 1

Solution

$$\frac{1}{2} + \frac{3}{4} + 1 = \frac{2}{4} + \frac{3}{4} + \frac{4}{4} = \frac{9}{4}$$

$$\text{Average} = \frac{\frac{9}{4}}{3} = \frac{9}{4} \times \frac{1}{3} = \frac{3}{4}$$

Final Answer $\frac{3}{4}$ — Option B**MCQ 9**

Find the average of the first five positive even numbers.

- A. 5 B. 6
C. 7 D. 8

Solution

$$2, 4, 6, 8, 10$$

$$\text{Sum} = 2 + 4 + 6 + 8 + 10 = 30$$

$$\text{Average} = \frac{30}{5} = 6$$

Final Answer

6 — Option B

MCQ 10

Find the average of 101, 103, 105, 107, 109.

- A. 103 B. 104
C. 105 D. 106

Solution

Equally spaced values

$$\text{Average} = \text{middle value} = 105$$

Final Answer

105 — Option C

MCQ 11

Find the average of 9, 12, 15, 18, 21, 24, 27.

- A. 17 B. 18
C. 19 D. 20

Solution

Equally spaced values

$$\text{Average} = \frac{9 + 27}{2} = \frac{36}{2} = 18$$

Final Answer

18 — Option B

MCQ 12

Find the average of the first ten natural numbers 1 to 10.

- A. 5 B. 5.5
C. 6 D. 6.5

Solution

$$\text{Sum} = \frac{10(10 + 1)}{2} = 55$$

$$\text{Average} = \frac{55}{10} = 5.5$$

Final Answer

5.5 — Option B

MCQ 13

Find the average of 21, 23, 25, 27, 29.

- A. 24 B. 25
C. 26 D. 27

Solution

Average = middle value = 25

Final Answer

25 — Option B

MCQ 14

Find the average of four consecutive integers 18, 19, 20, 21.

- A. 19 B. 19.5
C. 20 D. 20.5

Solution

$$\text{Sum} = 18 + 19 + 20 + 21 = 78$$

$$\text{Average} = \frac{78}{4} = 19.5$$

Final Answer

19.5 — Option B

MCQ 15

Find the average of the first five positive multiples of 7.

- A. 14 B. 18
C. 21 D. 28

Solution

$$7, 14, 21, 28, 35$$

$$\text{Average} = \frac{7 + 35}{2} = 21$$

Final Answer

21 — Option C

MCQ 16

The average of five numbers is 24. Four numbers are 20, 22, 25, 27. Find the fifth number.

- A. 24 B. 25
C. 26 D. 27

Solution

$$\text{Required total} = 5 \times 24 = 120$$

$$\text{Known total} = 20 + 22 + 25 + 27 = 94$$

$$x = 120 - 94 = 26$$

Final Answer

26 — Option C

MCQ 17

The average of six numbers is 18. Five are 10, 15, 17, 22, 24. Find the sixth.

- A. 18 B. 19
C. 20 D. 21

Solution

$$\text{Required total} = 6 \times 18 = 108$$

$$\text{Known total} = 10 + 15 + 17 + 22 + 24 = 88$$

$$x = 108 - 88 = 20$$

Final Answer

20 — Option C

MCQ 18

The average of four numbers is 35. Three are 28, 32, 40. Find the fourth.

- A. 36 B. 38
C. 40 D. 42

Solution

$$\text{Required total} = 4 \times 35 = 140$$

$$\text{Known total} = 28 + 32 + 40 = 100$$

$$x = 140 - 100 = 40$$

Final Answer

40 — Option C

MCQ 19

The average of eight numbers is 42. The sum of seven of them is 280. Find the eighth.

- A. 48 B. 52
C. 56 D. 60

Solution

$$\text{Required total} = 8 \times 42 = 336$$

$$x = 336 - 280 = 56$$

Final Answer

56 — Option C

MCQ 20

The average of four numbers is 30. Three are 25, 28, 31. Find the fourth.

- A. 34 B. 35
C. 36 D. 37

Solution

$$\text{Required total} = 4 \times 30 = 120$$

$$\text{Known total} = 25 + 28 + 31 = 84$$

$$x = 120 - 84 = 36$$

Final Answer**36** — Option C**MCQ 21**

Four numbers have average 18. A fifth number is added and the average becomes 20. Find the fifth number.

- A. 24 B. 26
C. 28 D. 30

Solution

$$\text{Old total} = 4 \times 18 = 72$$

$$\text{New total} = 5 \times 20 = 100$$

$$x = 100 - 72 = 28$$

Final Answer**28** — Option C**MCQ 22**

Five numbers have average 16. After adding one number, the average becomes 17. Find the added number.

- A. 20 B. 21
C. 22 D. 23

Solution

$$\text{Old total} = 5 \times 16 = 80$$

$$\text{New total} = 6 \times 17 = 102$$

$$x = 102 - 80 = 22$$

Final Answer**22** — Option C**MCQ 23**

Eight observations have average 45. One more observation makes the average 47. Find the new observation.

- A. 59 B. 61
C. 63 D. 65

Solution

$$\text{Old total} = 8 \times 45 = 360$$

$$\text{New total} = 9 \times 47 = 423$$

$$x = 423 - 360 = 63$$

Final Answer**63** — Option C**MCQ 24**

A batsman averages 42 runs in five innings. What must he score in the sixth inning to raise the average to 45?

- A. 54 B. 57
C. 60 D. 63

Reported past-paper type; wording and values independently prepared.

Solution

$$\text{Old runs} = 5 \times 42 = 210$$

$$\text{Required runs} = 6 \times 45 = 270$$

$$x = 270 - 210 = 60$$

Final Answer**60** — Option C**MCQ 25**

A student averages 72 in four tests. What score is needed in the fifth test for an average of 75?

- A. 81 B. 84
C. 87 D. 90

Solution

$$\text{Old total} = 4 \times 72 = 288$$

$$\text{Required total} = 5 \times 75 = 375$$

$$x = 375 - 288 = 87$$

Final Answer**87** — Option C

MCQ 26

Ten workers have an average monthly salary of Rs. 30,000. If one worker joins and the average becomes Rs. 31,000, find the new worker's salary.

- A. Rs. 36,000 B. Rs. 38,000
C. Rs. 40,000 D. Rs. 41,000

Solution

$$\text{Old total} = 10 \times 30000 = 300000$$

$$\text{New total} = 11 \times 31000 = 341000$$

$$x = 341000 - 300000 = 41000$$

Final Answer

Rs. 41,000 — Option D

MCQ 27

Average daily sales for seven days are 120 units. What must the eighth day's sales be to make the average 125?

- A. 150 B. 155
C. 160 D. 165

Solution

$$\text{Old total} = 7 \times 120 = 840$$

$$\text{Required total} = 8 \times 125 = 1000$$

$$x = 1000 - 840 = 160$$

Final Answer

160 — Option C

MCQ 28

Nine observations have average 24. If one observation 36 is removed, find the new average.

- A. 21.5 B. 22
C. 22.5 D. 23

Solution

$$\text{Old total} = 9 \times 24 = 216$$

$$\text{New total} = 216 - 36 = 180$$

$$\text{New average} = \frac{180}{8} = 22.5$$

Final Answer

22.5 — Option C

MCQ 29

Twelve numbers have average 50. If the number 39 is removed, find the average of the remaining numbers.

- A. 50 B. 50.5
C. 51 D. 51.5

Solution

$$\text{Old total} = 12 \times 50 = 600$$

$$\text{New total} = 600 - 39 = 561$$

$$\text{New average} = \frac{561}{11} = 51$$

Final Answer

51 — Option C

MCQ 30

Six numbers have average 25. The number 40 is replaced by 28. Find the new average.

- A. 22 B. 23
C. 24 D. 25

Solution

$$\text{Old total} = 6 \times 25 = 150$$

$$\text{Change} = 28 - 40 = -12$$

$$\text{New total} = 150 - 12 = 138$$

$$\text{New average} = \frac{138}{6} = 23$$

Final Answer

23 — Option B

MCQ 31

The average marks of 20 students are 60. One new student joins and the average becomes 61. Find the new student's marks.

- A. 76 B. 79
C. 81 D. 84

Solution

$$\text{Old total} = 20 \times 60 = 1200$$

$$\text{New total} = 21 \times 61 = 1281$$

$$x = 1281 - 1200 = 81$$

Final Answer

81 — Option C

MCQ 32

A team of 11 players has average score 28. A player scoring 15 is replaced and the average rises by 2. Find the new player's score.

- A. 33 B. 35
C. 37 D. 39

Solution

$$\text{Increase in total} = 11 \times 2 = 22$$

$$\text{New score} = 15 + 22 = 37$$

Final Answer

37 — Option C

MCQ 33

The average age of 15 persons is 24 years. A child joins and the average becomes 23 years. Find the child's age.

- A. 6 B. 8
C. 10 D. 12

Common reported one-paper pattern; values adapted.

Solution

$$\text{Old total age} = 15 \times 24 = 360$$

$$\text{New total age} = 16 \times 23 = 368$$

$$x = 368 - 360 = 8$$

Final Answer

8 years — Option B

MCQ 34

The average marks of 25 students are 40. A teacher is included and the average becomes 42. Find the teacher's value in this numerical set.

- A. 82 B. 88
C. 92 D. 96

Solution

$$\text{Old total} = 25 \times 40 = 1000$$

$$\text{New total} = 26 \times 42 = 1092$$

$$x = 1092 - 1000 = 92$$

Final Answer

92 — Option C

MCQ 35

Ten persons have average weight 55 kg. A person weighing 64 kg leaves. Find the average weight of the remaining nine.

- A. 53 B. 54
C. 55 D. 56

Solution

$$\text{Old total} = 10 \times 55 = 550$$

$$\text{New total} = 550 - 64 = 486$$

$$\text{New average} = \frac{486}{9} = 54$$

Final Answer

54 kg — Option B

MCQ 36

Twelve numbers have average 48. If the number 37 is removed, what is the new average?

- A. 48 B. 49
C. 50 D. 51

Solution

$$\text{Old total} = 12 \times 48 = 576$$

$$\text{New total} = 576 - 37 = 539$$

$$\text{New average} = \frac{539}{11} = 49$$

Final Answer

49 — Option B

MCQ 37

Eight workers have an average salary of Rs. 25,000. Two new workers join and the new average becomes Rs. 26,000. Find the average salary of the two new workers.

- A. Rs. 28,000 B. Rs. 30,000
C. Rs. 32,000 D. Rs. 35,000

Solution

$$\text{Old total} = 8 \times 25000 = 200000$$

$$\text{New total} = 10 \times 26000 = 260000$$

$$\text{Two new salaries} = 260000 - 200000 = 60000$$

$$\text{Their average} = \frac{60000}{2} = 30000$$

Final Answer

Rs. 30,000 — Option B

MCQ 38

The average age of 30 students is 15 years. Their teacher joins and the average becomes 16 years. Find the teacher's age.

- A. 42 B. 44
C. 46 D. 48

Solution

$$\text{Students total} = 30 \times 15 = 450$$

$$\text{New total} = 31 \times 16 = 496$$

$$\text{Teacher age} = 496 - 450 = 46$$

Final Answer

46 years — Option C

MCQ 39

The average of 18 values is 24. A value 30 is replaced by 21. Find the new average.

- A. 23 B. 23.5
C. 24 D. 24.5

Solution

$$\text{Old total} = 18 \times 24 = 432$$

$$\text{New total} = 432 - 30 + 21 = 423$$

$$\text{New average} = \frac{423}{18} = 23.5$$

Final Answer

23.5 — Option B

MCQ 40

The average marks of 40 students were calculated as 68. A mark 80 was entered instead of 40. Find the correct average.

- A. 66 B. 67
C. 68 D. 69

Solution

$$\text{Wrong total} = 40 \times 68 = 2720$$

$$\text{Correct total} = 2720 - 80 + 40 = 2680$$

$$\text{Correct average} = \frac{2680}{40} = 67$$

Final Answer

67 — Option B

MCQ 41

The average of 20 numbers was calculated as 35. A value 48 was used instead of 84. Find the correct average.

- A. 35.8 B. 36.2
C. 36.8 D. 37.2

Solution

$$\text{Wrong total} = 20 \times 35 = 700$$

$$\text{Correction} = 84 - 48 = 36$$

$$\text{Correct total} = 700 + 36 = 736$$

$$\text{Correct average} = \frac{736}{20} = 36.8$$

Final Answer

36.8 — Option C

MCQ 42

The average of 10 values was found to be 24. Later, 16 was found to have been entered instead of 61. Find the correct average.

- A. 27.5 B. 28
C. 28.5 D. 29

Solution

$$\text{Wrong total} = 10 \times 24 = 240$$

$$\text{Correct total} = 240 - 16 + 61 = 285$$

$$\text{Correct average} = \frac{285}{10} = 28.5$$

Final Answer

28.5 — Option C

MCQ 43

The average of 25 values was calculated as 32. One value 25 should have been 50. Find the correct average.

- A. 32 B. 32.5
C. 33 D. 33.5

Solution

$$\text{Wrong total} = 25 \times 32 = 800$$

$$\text{Correct total} = 800 - 25 + 50 = 825$$

$$\text{Correct average} = \frac{825}{25} = 33$$

Final Answer

33 — Option C

MCQ 44

The average of 30 values was calculated as 42. One value 72 should have been 27. Find the correct average.

- A. 40 B. 40.5
C. 41 D. 41.5

Solution

$$\text{Wrong total} = 30 \times 42 = 1260$$

$$\text{Correct total} = 1260 - 72 + 27 = 1215$$

$$\text{Correct average} = \frac{1215}{30} = 40.5$$

Final Answer

40.5 — Option B

MCQ 45

The average of 50 values was calculated as 60. A value 86 should have been 68. Find the correct average.

- A. 59.36 B. 59.64
C. 60.36 D. 60.64

Solution

$$\text{Wrong total} = 50 \times 60 = 3000$$

$$\text{Correct total} = 3000 - 86 + 68 = 2982$$

$$\text{Correct average} = \frac{2982}{50} = 59.64$$

Final Answer

59.64 — Option B

MCQ 46

A group of 20 has average 50, and another group of 30 has average 60. Find the combined average.

- A. 54 B. 55
C. 56 D. 58

Solution

$$\text{Combined total} = 20(50) + 30(60) = 1000 + 1800 = 2800$$

$$\text{Total members} = 20 + 30 = 50$$

$$\text{Average} = \frac{2800}{50} = 56$$

Final Answer

56 — Option C

MCQ 47

A group of 15 has average 40, and a group of 25 has average 52. Find the combined average.

- A. 46 B. 47
C. 47.5 D. 48

Solution

$$\text{Combined total} = 15(40) + 25(52) = 600 + 1300 = 1900$$

$$\text{Members} = 40$$

$$\text{Average} = \frac{1900}{40} = 47.5$$

Final Answer

47.5 — Option C

MCQ 48

The average marks of 18 boys are 65, and those of 12 girls are 75. Find the class average.

- A. 67 B. 68
C. 69 D. 70

Solution

$$\text{Total marks} = 18(65) + 12(75) = 1170 + 900 = 2070$$

$$\text{Students} = 30$$

$$\text{Average} = \frac{2070}{30} = 69$$

Final Answer

69 — Option C

MCQ 49

Forty employees average Rs. 30,000 and sixty employees average Rs. 40,000. Find the combined average salary.

- A. Rs. 34,000 B. Rs. 35,000
C. Rs. 36,000 D. Rs. 38,000

Solution

$$\text{Total} = 40(30000) + 60(40000) = 1200000 + 2400000 = 3600000$$

$$\text{Employees} = 100$$

$$\text{Average} = \frac{3600000}{100} = 36000$$

Final Answer

Rs. 36,000 — Option C

MCQ 50

A class of 25 has average 70, and another class of 35 has average 80. Find the combined average.

- A. 74.50 B. 75.00
C. 75.83 D. 76.50

Solution

$$\text{Total} = 25(70) + 35(80) = 1750 + 2800 = 4550$$

$$\text{Students} = 60$$

$$\text{Average} = \frac{4550}{60} = 75.833 \dots$$

Final Answer 75.83 (approx.) — Option C

MCQ 51

Fifty students have average marks 70. Twenty of them average 76. Find the average of the remaining 30.

- A. 64 B. 65
C. 66 D. 68

Solution

$$\text{Whole total} = 50(70) = 3500$$

$$\text{First group total} = 20(76) = 1520$$

$$\text{Remaining total} = 3500 - 1520 = 1980$$

$$\text{Average} = \frac{1980}{30} = 66$$

Final Answer 66 — Option C

MCQ 52

Forty values have average 55. Fifteen of them have average 50. Find the average of the remaining 25.

- A. 56 B. 57
C. 58 D. 59

Solution

$$\text{Whole total} = 40(55) = 2200$$

$$\text{First total} = 15(50) = 750$$

$$\text{Remaining} = 2200 - 750 = 1450$$

$$\text{Average} = \frac{1450}{25} = 58$$

Final Answer 58 — Option C

MCQ 53

Sixty persons have average age 45. Thirty-six men have average age 50. Find the average age of the remaining 24 persons.

- A. 35 B. 36.5
C. 37.5 D. 40

Solution

$$\text{Whole total} = 60(45) = 2700$$

$$\text{Men total} = 36(50) = 1800$$

$$\text{Remaining total} = 2700 - 1800 = 900$$

$$\text{Average} = \frac{900}{24} = 37.5$$

Final Answer 37.5 — Option C

MCQ 54

Eighty students have average marks 65. Fifty of them average 68. Find the average of the remaining 30.

- A. 58 B. 59
C. 60 D. 61

Solution

$$\text{Whole total} = 80(65) = 5200$$

$$\text{First group} = 50(68) = 3400$$

$$\text{Remaining} = 1800$$

$$\text{Average} = \frac{1800}{30} = 60$$

Final Answer 60 — Option C

MCQ 55

Thirty students average 75. The top ten average 90. Find the average of the remaining twenty.

- A. 65 B. 67.5
C. 70 D. 72.5

Solution

$$\text{Whole total} = 30(75) = 2250$$

$$\text{Top ten} = 10(90) = 900$$

$$\text{Remaining total} = 2250 - 900 = 1350$$

$$\text{Average} = \frac{1350}{20} = 67.5$$

Final Answer 67.5 — Option B

MCQ 56

One hundred observations average 48. Forty of them average 60. Find the average of the remaining sixty.

- A. 38 B. 40
C. 42 D. 44

Solution

$$\text{Whole total} = 100(48) = 4800$$

$$\text{First group} = 40(60) = 2400$$

$$\text{Remaining} = 2400$$

$$\text{Average} = \frac{2400}{60} = 40$$

Final Answer 40 — Option B

MCQ 57

Twenty-four players average 30 runs. Eight batsmen average 45 runs. Find the average of the remaining sixteen players.

- A. 20 B. 22.5
C. 25 D. 27.5

Solution

$$\text{Whole total} = 24(30) = 720$$

$$\text{Batsmen} = 8(45) = 360$$

$$\text{Remaining} = 360$$

$$\text{Average} = \frac{360}{16} = 22.5$$

Final Answer 22.5 — Option B

MCQ 58

A family of six has average age 28. The two parents have average age 48. Find the average age of the four children.

- A. 16 B. 18
C. 20 D. 22

Solution

$$\text{Family total} = 6(28) = 168$$

$$\text{Parents total} = 2(48) = 96$$

$$\text{Children total} = 168 - 96 = 72$$

$$\text{Average} = \frac{72}{4} = 18$$

Final Answer 18 years — Option B

MCQ 59

A shop sells an average of 120 units per day for five days and 150 units per day for the next three days. Find the eight-day average.

- A. 128.75 B. 130
C. 131.25 D. 135

Solution

$$\text{Total} = 5(120) + 3(150) = 600 + 450 = 1050$$

$$\text{Average} = \frac{1050}{8} = 131.25$$

Final Answer 131.25 — Option C

MCQ 60

A factory averages 80 units for four months and 100 units for the next two months. Find the six-month average.

- A. 84 B. 85
C. 86.67 D. 90

Solution

$$\text{Total} = 4(80) + 2(100) = 320 + 200 = 520$$

$$\text{Average} = \frac{520}{6} = 86.666 \dots$$

Final Answer 86.67 (approx.) — Option C

MCQ 61

The ages of a father, mother and child are 40, 36, 8 years. Find their average age.

- A. 26 B. 28
C. 30 D. 32

Solution

$$\text{Total age} = 40 + 36 + 8 = 84$$

$$\text{Average} = \frac{84}{3} = 28$$

Final Answer 28 years — Option B

MCQ 62

A family of five has average age 26. The parents' ages total 70. Find the average age of the three children.

- A. 18 B. 20
C. 22 D. 24

Solution

$$\text{Family total} = 5(26) = 130$$

$$\text{Children total} = 130 - 70 = 60$$

$$\text{Children average} = \frac{60}{3} = 20$$

Final Answer

20 years — Option B

MCQ 63

Six students have average age 14. Their teacher joins and the average becomes 18. Find the teacher's age.

- A. 38 B. 40
C. 42 D. 44

Solution

$$\text{Students total} = 6(14) = 84$$

$$\text{New total} = 7(18) = 126$$

$$\text{Teacher age} = 126 - 84 = 42$$

Final Answer

42 years — Option C

MCQ 64

The average age of 11 players is 22 years. The captain is 32. Find the average age of the other ten players.

- A. 20 B. 21
C. 22 D. 23

Solution

$$\text{Whole total} = 11(22) = 242$$

$$\text{Others total} = 242 - 32 = 210$$

$$\text{Average} = \frac{210}{10} = 21$$

Final Answer

21 years — Option B

MCQ 65

A student has average marks 74 in six subjects. The total of five subject marks is 365. Find the sixth subject mark.

- A. 75 B. 77
C. 79 D. 81

Solution

$$\text{Required total} = 6(74) = 444$$

$$x = 444 - 365 = 79$$

Final Answer

79 — Option C

MCQ 66

Eight subjects have average marks 68. If one subject mark is 96, find the average of the remaining seven.

- A. 62 B. 64
C. 66 D. 68

Solution

$$\text{Whole total} = 8(68) = 544$$

$$\text{Remaining total} = 544 - 96 = 448$$

$$\text{Average} = \frac{448}{7} = 64$$

Final Answer

64 — Option B

MCQ 67

A player scores 45, 55, 65, 75, 85 in five matches. Find the average.

- A. 60 B. 62
C. 65 D. 68

Solution

$$\text{Total} = 45 + 55 + 65 + 75 + 85 = 325$$

$$\text{Average} = \frac{325}{5} = 65$$

Final Answer

65 — Option C

MCQ 68

A batsman averages 54 runs in five innings. His first four innings total 200. Find the fifth score.

- A. 60 B. 65
C. 70 D. 75

Solution

$$\text{Five-innings total} = 5(54) = 270$$

$$\text{Fifth score} = 270 - 200 = 70$$

Final Answer

70 — Option C

MCQ 69

A batsman averages 36 runs in ten matches. After the eleventh match, the average becomes 38. Find the eleventh score.

- A. 52 B. 56
C. 58 D. 60

Solution

$$\text{Old total} = 10(36) = 360$$

$$\text{New total} = 11(38) = 418$$

$$\text{Score} = 418 - 360 = 58$$

Final Answer

58 — Option C

MCQ 70

A player averages 50 in 20 innings. He scores 100 in the next inning. Find the new average.

- A. 51.50 B. 52.00
C. 52.38 D. 52.50

Solution

$$\text{Old total} = 20(50) = 1000$$

$$\text{New total} = 1000 + 100 = 1100$$

$$\text{Average} = \frac{1100}{21} = 52.3809 \dots$$

Final Answer

52.38 (approx.) — Option C

MCQ 71

Five employees earn 25, 30, 35, 40, 45 thousand rupees. Find the average salary in thousand rupees.

- A. 33 B. 34
C. 35 D. 36

Solution

$$\text{Total} = 25 + 30 + 35 + 40 + 45 = 175$$

$$\text{Average} = \frac{175}{5} = 35$$

Final Answer

35 thousand — Option C

MCQ 72

Nine employees have average salary Rs. 44,000. Eight of them average Rs. 40,000. Find the ninth employee's salary.

- A. Rs. 72,000 B. Rs. 74,000
C. Rs. 76,000 D. Rs. 78,000

Solution

$$\text{Nine total} = 9(44000) = 396000$$

$$\text{Eight total} = 8(40000) = 320000$$

$$x = 396000 - 320000 = 76000$$

Final Answer

Rs. 76,000 — Option C

MCQ 73

A factory produces an average of 140 units per day for seven days. The first six days total 810 units. Find the seventh day's production.

- A. 150 B. 160
C. 170 D. 180

Solution

$$\text{Seven-day total} = 7(140) = 980$$

$$x = 980 - 810 = 170$$

Final Answer

170 — Option C

MCQ 74

Monthly sales average 250 units for twelve months. The first ten months average 240. Find the average of the last two months.

- A. 280 B. 290
C. 300 D. 310

Solution

$$\text{Year total} = 12(250) = 3000$$

$$\text{First ten} = 10(240) = 2400$$

$$\text{Last two total} = 600$$

$$\text{Average} = \frac{600}{2} = 300$$

Final Answer 300 — Option C

MCQ 75

The average temperature for seven days is 28°C . The first three days average 30°C . Find the average for the last four days.

- A. 25.5°C B. 26°C
C. 26.5°C D. 27°C

Solution

$$\text{Seven-day total} = 7(28) = 196$$

$$\text{First three} = 3(30) = 90$$

$$\text{Last four total} = 196 - 90 = 106$$

$$\text{Average} = \frac{106}{4} = 26.5$$

Final Answer 26.5°C — Option C

MCQ 76

The average of five consecutive integers is 32. Find the smallest integer.

- A. 28 B. 29
C. 30 D. 31

Solution

$$x, x+1, x+2, x+3, x+4$$

$$\text{Average} = x+2 = 32$$

$$x = 30$$

Final Answer 30 — Option C

MCQ 77

Seven consecutive even integers have average 24. Find the smallest.

- A. 16 B. 18
C. 20 D. 22

Solution

$$\text{Middle number} = 24$$

$$\text{Three even steps below} = 24 - 3(2) = 18$$

Final Answer 18 — Option B

MCQ 78

Six consecutive odd integers have average 20. Find the largest.

- A. 23 B. 25
C. 27 D. 29

Solution

$$15, 17, 19, 21, 23, 25$$

$$\text{Average} = \frac{15+25}{2} = 20$$

$$\text{Largest} = 25$$

Final Answer 25 — Option B

MCQ 79

Four consecutive integers have average 11.5. Find the largest.

- A. 12 B. 13
C. 14 D. 15

Solution

$$10, 11, 12, 13$$

$$\text{Average} = \frac{10+13}{2} = 11.5$$

$$\text{Largest} = 13$$

Final Answer 13 — Option B

MCQ 80

Nine consecutive multiples of 3 have average 30. Find the smallest.

- A. 15 B. 18
C. 21 D. 24

Solution

Middle multiple = 30

Four steps below = $30 - 4(3) = 18$

Final Answer

18 — Option B

MCQ 81

The average of 11 consecutive integers is 50. Find the largest integer.

- A. 54 B. 55
C. 56 D. 60

Solution

Middle = 50

Five steps above = $50 + 5 = 55$

Final Answer

55 — Option B

MCQ 82

The average of five consecutive odd integers is 37. Find their sum.

- A. 175 B. 180
C. 185 D. 190

Solution

Sum = Average $\times$ Number

= $37 \times 5 = 185$

Final Answer

185 — Option C

MCQ 83

The average of seven consecutive multiples of 4 is 40. Find the largest.

- A. 48 B. 52
C. 56 D. 60

Solution

Middle = 40

Three steps above = $40 + 3(4) = 52$

Final Answer

52 — Option B

MCQ 84

If the average of $x, x + 5, x + 10$ is 25, find x .

- A. 15 B. 20
C. 25 D. 30

Solution

$$\frac{x + (x + 5) + (x + 10)}{3} = 25$$

$$\frac{3x + 15}{3} = 25$$

$$3x + 15 = 75$$

$$3x = 60$$

$$x = 20$$

Final Answer

20 — Option B

MCQ 85

If the average of $2x, 3x, 5x$ is 40, find x .

- A. 10 B. 12
C. 15 D. 20

Solution

$$\frac{2x + 3x + 5x}{3} = 40$$

$$\frac{10x}{3} = 40$$

$$10x = 120$$

$$x = 12$$

Final Answer

12 — Option B

MCQ 86

Twenty items cost an average of Rs. 10 each and thirty items cost an average of Rs. 20 each. Find the average cost per item.

- A. 14 B. 15
C. 16 D. 18

Solution

Total cost = $20(10) + 30(20) = 200 + 600 = 800$

Items = 50

$$\text{Average} = \frac{800}{50} = 16$$

Final Answer

Rs. 16 — Option C

MCQ 87

Forty students average 60 marks and ten students average 80 marks. Find the combined average.

- A. 62 B. 64
C. 66 D. 68

Solution

$$\text{Total} = 40(60) + 10(80) = 2400 + 800 = 3200$$

$$\text{Students} = 50$$

$$\text{Average} = \frac{3200}{50} = 64$$

Final Answer

64 — Option B

MCQ 88

Three kilograms of an item cost Rs. 200 per kg and two kilograms cost Rs. 350 per kg. Find the average cost per kg.

- A. Rs. 240 B. Rs. 250
C. Rs. 260 D. Rs. 270

Solution

$$\text{Total cost} = 3(200) + 2(350) = 600 + 700 = 1300$$

$$\text{Total mass} = 5 \text{ kg}$$

$$\text{Average} = \frac{1300}{5} = 260$$

Final Answer

Rs. 260 — Option C

MCQ 89

A course has a 3-credit subject with score 80 and a 2-credit subject with score 70. Find the credit-weighted average.

- A. 74 B. 75
C. 76 D. 77

Solution

$$\text{Weighted total} = 3(80) + 2(70) = 240 + 140 = 380$$

$$\text{Credits} = 3 + 2 = 5$$

$$\text{Weighted average} = \frac{380}{5} = 76$$

Final Answer

76 — Option C

MCQ 90

A vehicle travels for one hour at 60 km/h and one hour at 40 km/h. Find the average speed.

- A. 45 km/h B. 48 km/h
C. 50 km/h D. 52 km/h

Solution

$$\text{Distance} = 60(1) + 40(1) = 100$$

$$\text{Time} = 1 + 1 = 2$$

$$\text{Average speed} = \frac{100}{2} = 50$$

Final Answer

50 km/h — Option C

MCQ 91

A vehicle covers equal distances at 60 km/h and 40 km/h. Find the average speed.

- A. 45 km/h B. 48 km/h
C. 50 km/h D. 52 km/h

Useful cross-topic average pattern; detailed speed treatment appears later.

Solution

$$\text{For equal distances: } v_{avg} = \frac{2ab}{a+b}$$

$$= \frac{2(60)(40)}{60+40}$$

$$= \frac{4800}{100} = 48$$

Final Answer

48 km/h — Option B

MCQ 92

Five litres of liquid cost Rs. 60 per litre and three litres cost Rs. 80 per litre. Find the average cost per litre.

- A. Rs. 65 B. Rs. 67.50
C. Rs. 70 D. Rs. 72.50

Solution

$$\text{Total cost} = 5(60) + 3(80) = 300 + 240 = 540$$

$$\text{Litres} = 8$$

$$\text{Average} = \frac{540}{8} = 67.5$$

Final Answer

Rs. 67.50 — Option B

MCQ 93

An investment has 70% of its amount earning 10% and 30% earning 20%. Find the weighted average return.

- A. 12% B. 13%
C. 14% D. 15%

Solution

$$\begin{aligned}\text{Weighted return} &= 0.70(10) + 0.30(20) \\ &= 7 + 6 = 13\%\end{aligned}$$

Final Answer

13% — Option B

MCQ 94

Find the average of all integers from 1 to 99.

- A. 49 B. 49.5
C. 50 D. 50.5

Solution

$$\begin{aligned}\text{Average} &= \frac{\text{first} + \text{last}}{2} \\ &= \frac{1 + 99}{2} = 50\end{aligned}$$

Final Answer

50 — Option C

MCQ 95

Find the average of the multiples of 5 from 5 to 50.

- A. 25 B. 27.5
C. 30 D. 32.5

Solution

$$\begin{aligned}&5, 10, 15, \dots, 50 \\ \text{Average} &= \frac{5 + 50}{2} = 27.5\end{aligned}$$

Final Answer

27.5 — Option B

MCQ 96

The average of eight numbers is 15. If 3 is added to every number, what is the new average?

- A. 15 B. 16
C. 17 D. 18

Solution

$$\text{Old average} = 15$$

Each value increases by 3

$$\text{New average} = 15 + 3 = 18$$

Final Answer

18 — Option D

MCQ 97

The average of a set of numbers is 12. If every number is doubled, what is the new average?

- A. 18 B. 20
C. 24 D. 36

Solution

$$\begin{aligned}\text{New average} &= 2(\text{old average}) \\ &= 2(12) = 24\end{aligned}$$

Final Answer

24 — Option C

MCQ 98

The average of $x, x + 2, x + 4$ is 18. Find x .

- A. 14 B. 16
C. 18 D. 20

Solution

$$\begin{aligned}\frac{x + (x + 2) + (x + 4)}{3} &= 18 \\ \frac{3x + 6}{3} &= 18 \\ 3x + 6 &= 54 \\ 3x &= 48 \\ x &= 16\end{aligned}$$

Final Answer

16 — Option B

MCQ 99

Three numbers are in the ratio 2 : 3 : 4 and their average is 27. Find the largest number.

- A. 27 B. 30
C. 36 D. 45

Solution

$$\text{Total} = 3(27) = 81$$

$$\text{Ratio parts} = 2 + 3 + 4 = 9$$

$$1 \text{ part} = \frac{81}{9} = 9$$

$$\text{Largest} = 4(9) = 36$$

Final Answer**36** — Option C**MCQ 100**

The average of two numbers is 30 and their difference is 10. Find the larger number.

- A. 30 B. 35
C. 40 D. 45

Solution

$$x + y = 2(30) = 60$$

$$x - y = 10$$

$$2x = 70$$

$$x = 35$$

Final Answer**35** — Option B

Average / Arithmetic Mean - Rapid Revision Grid**Direct mean**

$$\bar{x} = \frac{\sum x}{n}$$
$$\sum x = n\bar{x}$$

New member

$$\text{New value} = (n + 1)\bar{x}_{\text{new}} - n\bar{x}_{\text{old}}$$

Combined groups

$$\bar{x} = \frac{n_1\bar{x}_1 + n_2\bar{x}_2}{n_1 + n_2}$$

Correction

$$\bar{x}_{\text{correct}} = \bar{x}_{\text{wrong}} + \frac{\text{correct value} - \text{wrong value}}{n}$$