

RRB NTPC

Previous Years' Arithmetic Questions

Part IV

Average, LCM & HCF



1. Mean of 10 observations is 13. There are two more observation added then new mean becomes 14. Find the mean of two new observations.

- (A) 19
(B) 18
(C) 17
(D) 16

- A. B
B. D
C. A
D. C

Ans. C

Sol.

$$\text{Mean} = \frac{\text{sum}}{\text{number}}$$

$$\text{Total Sum} = 13 \times 10 = 130$$

When 2 new observations are added then,

New mean = 14, New total no. = 12

$$\text{Sum} = 14 \times 12 = 168$$

$$\text{Sum of two observations} = 168 - 130 = 38$$

$$\text{Mean of two new observations} = \frac{38}{2} = 19.$$

2. If the standard deviation of a population is 6.5. What will be variance?

- (A) 40.25
(B) 42.25
(C) 18.25
(D) 13

- A. C
B. A
C. D
D. 5

Ans. D

Sol.

Sol.

$$\text{Variance} = (\text{Standard deviation})^2$$

$$= (6.5)^2$$

$$= 42.25.$$

3. A sum (P) becomes two times in 10 years. How much will it become in 20 years.

- (A) P
(B) 2P
(C) 3P
(D) 4P

- A. A
B. C
C. B
D. D

Ans. B

Sol.

It will become 3P in 20 years.

4. Mean of a distribution is 21 and standard deviation is 7 . Find coefficient of variation (variance).

- (A) 16.66%
(B) 66.66%
(C) 33.33%
(D) 100%

- A. B
B. D
C. A
D. C

Ans. D

Sol.

$$\text{Coefficient of variation} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

$$= \frac{7}{21} \times 100$$

$$= 33.33 \%$$

5. Using the formulas of mean proportion and third proportion find the ratio of third proportion of 8 and 20 and mean proportion of 4 and 9

- (A) 21 : 6
(B) 25 : 3
(C) 24 : 5
(D) 5 : 2

- A. (C)
B. (B)
C. (A)
D. (D)

Ans. B

Sol.

Third proportion of 8 and 20 -

$$8/20 = 20/x$$

$$x = (20 \times 20) / 8$$

$$x = 5 \times 10$$

$$x = 50$$

Now, mean proportion of 4 and 9 -

$$X = \sqrt{4 \times 9}$$

$$X = \sqrt{36}$$

$$X = 6$$

$$\text{Ratio} = 25 : 3$$

Option B is correct response.



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6. Three numbers are given, in which second number is three times of first number and two times of third number. If the average of all three numbers is 66 then find the first numbers.

- (A) 36
- (B) 54
- (C) 108
- (D) 72
- A. (A)
- B. (B)
- C. (C)
- D. (D)

Ans. A

Sol.

7. What is average of first 30 multiple of 9?

- (A) 142
- (B) 138.5
- (C) 139.5
- (D) 143.5

- A. (B)
- B. (C)
- C. (A)
- D. (D)

Ans. B

Sol.

First 30 multiple of 9

$$= 9 + 18 + 27 + \dots + 270$$

$$= 9(1 + 2 + 3 + \dots + 30)$$

Sum of first n terms

$$= \frac{n(n+1)}{2}$$

$$Sum = 9 \times 30 \times \frac{31}{2}$$

$$Avg. = \frac{9 \times 30 \times 31}{30 \times 2} = \frac{279}{2}$$

$$= 139.5$$

8. If the standard deviation of a population is 4.5. What will its variance?

- (A) 20.25
- (B) 20
- (C) 9
- (D) 18

- A. (D)
- B. (C)
- C. (B)
- D. (A)

Ans. D

Sol.

$$Variance = (4.5)^2 = 20.25$$

9. What is the minimum value of y, by which 26y742 is completely divisible by 3?

- (A) 2
- (B) 1
- (C) 0
- (D) 5

- A. (D)
- B. (B)
- C. (C)
- D. (A)

Ans. C

Sol.

To check the divisibility by 3, we check the sum of digits should be divisible by 3.

$$\frac{2 + 6 + y + 7 + 4 + 2}{3} = \frac{21 + y}{3}$$

We put y = 0 then,

$$\frac{21}{3} = 0 \text{ (remainder).}$$

10. Mean of 12 observations is 15 . If a observation is added into it then new mean becomes 16 . Find the 13th observation.

- (A) 20
- (B) 24
- (C) 26
- (D) 28

- A. (B)
- B. (D)
- C. (A)
- D. (C)

Ans. B

Sol.

A.T.Q

$$12 \times 15 = 180$$

$$16 \times 13 = 208$$

$$13^{\text{th}} \text{ no.} = \text{Difference} = 28$$

11. Average cost price of 40 pens is ` 10 and average cost price of 30 pencils is `

2. If all sell in ` 560. Find average selling price per object.

- (A) ` 8
- (B) ` 7
- (C) ` 7.50



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(D) ` 10

A. (B)

B. (C)

C. (D)

D. (A)

Ans. D

Sol.

Selling price of 70 objects (40 pens and 30 pencils) = ₹ 560

So, Average selling price = $560/70 = 8$ ₹

12. The expenditure of a man increases to ` 10000 in each February and March. If expenditure of the man was ` 10,000 in January. Then find the average expenditure of the man from January to March.

(A) 20,000

(B) 15,000

(C) 10,000

(D) 25,000

A. (C)

B. (A)

C. (B)

D. (D)

Ans. B

Sol.

Expenditure of the man in January = Rs. 10,000

The expenditure of a man increases to Rs. 10000 in each February and March, so

Expenditure of February = $10000 + 10000 = \text{Rs. } 20000$

Expenditure of March = $20000 + 10000 = \text{Rs. } 30000$

Therefore, the average expenditure of the man from January to march = $\frac{10000 + 20000 + 30000}{3} = \text{Rs. } 20000$

13. The mean of the data $1, \frac{1}{2}, \frac{1}{2}, \frac{3}{4},$

$2, \frac{1}{2}, \frac{1}{4}, 1/4$ and $\frac{3}{4}$ is

(A) $\frac{15}{18}$

(B) $\frac{13}{18}$

(C) $\frac{7}{9}$

(D) $\frac{8}{9}$

A. (A)

B. (B)

C. (D)

D. (C)

Ans. B

Sol.

Mean of the data

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

$= (26/4)/9 = 13/18$

14. The average ages of parents and two children are 30 years and 8 years respectively. The average age of the family is

(A) 16 years

(B) 19 years

(C) 18 years

(D) 17 years

A. (C)

B. (A)

C. (D)

D. (B)

Ans. D

Sol.

Total age of parents = $30 \times 2 = 60$ years

Total age of two children = $8 \times 2 = 16$ years

Average age of family = $(60 + 16)/4 = 76/4 = 19$ years

15. Find the median of all the positive factors of 48.

(A) 16

(B) 12

(C) 8

(D) 7

A. (D)

B. (A)

C. (C)

D. (B)

Ans. A

Sol.

All the positive factors of 48

1, 2, 3, 4, 6, 8, 12, 16, 24, 48

Number of total factors is even so we will take two middle terms to calculate median

Median = $\frac{1}{2} \times (5^{th} \text{ term} + 6^{th} \text{ term})$

$= \frac{1}{2} \times (6 + 8) = 7$



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16. Find the average of first 20 multiples of 12.

- (A) 124
(B) 120
(C) 126
(D) 130

- A. (C)
B. (D)
C. (B)
D. (A)

Ans. A

Sol.

We know that,

$$T_n = a + (n-1)d$$

$$T_{20} = 12 + 19 \times 12$$

$$T_{20} = 240 \text{ (Last term)}$$

Now series will be, 12, 24, 36 240

$$S_n = n[a + l]/2$$

$$S_{20} = 20[12 + 240]/2$$

$$= 20 \times 126$$

$$\text{Average of } 20^{\text{th}} \text{ terms} = 20 \times 126 / 20 = 126$$

17. Find the average of first 20 multiples of 8

- (A) 78
(B) 80
(C) 84
(D) 82

- A. (B)
B. (C)
C. (D)
D. (A)

Ans. B

Sol.

First 20 multiple of 8 are 8, 16, 160

We can say that it is an Arithmetic progression with first term 8 and last term = 160

$$\text{Average of an AP} = (\text{first term} + \text{last term})/2 = (8 + 160)/2 = 84$$

18. If 68.04 quintals (metric) of rice has to be distributed among 3780 people, how much will each person get?

- (A) 18 kg
(B) 1.8 kg
(C) 180 kg
(D) 1.08 kg

- A. (A)
B. (C)
C. (B)
D. (D)

Ans. C

Sol.

Total quantity of the rice = 68.04 quintal = 6804 Kg.

Number of the people = 3780

Each person will get = $6804 / 3780 = 1.808$ Kg.

19. Find the mean, mode and median of 3, 4, 5, 3, 6, 3, 4, 5 and 3 respectively

- (A) 4, 4, 4
(B) 4, 4, 3
(C) 3, 4, 4
(D) 4, 3, 4

A. (D)

B. (C)

C. (B)

D. (A)

Ans. A

Sol.

Lets arrange the following data in ascending order\

3, 3, 3, 3, 4, 4, 5, 5, 6

$$\text{Mean} = (3 + 3 + 3 + 3 + 4 + 4 + 5 + 5 + 6) / 9 = 36 / 9 = 4$$

Median of the following dataset is the mid value of the data set = 4

Mode of the data is the value which appears maximum number of times i.e. = 3

20. Being at strike in next over too, how much maximum score a batsmen can do. If in it no ball, wide or overthrow is not included.

- (A) 36
(B) 34
(C) 33
(D) 31

A. (B)

B. (A)

C. (C)

D. (D)

Ans. C

Sol. Maximum runs in an over so that the batsman is on strike again in the next over will be in the order

6, 6, 6, 6, 5

Six on first 5 balls and he runs 3 on the last ball

hence 33 runs.

21. If the mode of given data is 52. Then find the value of x.



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52, 45, 49, 54, 56, 52, $x-3$, 56

- (A) 54
(B) 55
(C) 54
(D) 56

- A. (B)
B. (D)
C. (A)
D. (C)

Ans. A

Sol. Mode has the maximum frequency in a series.

therefore $x - 3 = 52$

$x = 55$

22. There are three piles of rice. Each weight is 120 kg, 144 kg and 204 kg. Find the maximum capacity of bag so that each piles of rice can be packed in whole no. of bags.

- (A) 12
(B) 10
(C) 15
(D) 18

- A. (C)
B. (A)
C. (B)
D. (D)

Ans. B

Sol. We need to find the H.C.F of three quantities

$$120 = 2^3 \times 3 \times 5$$

$$144 = 2^4 \times 3^2$$

$$204 = 2^2 \times 3 \times 17$$

$$\text{H.C.F} = 2^2 \times 3 \text{ (Common in all three)} \\ = 12$$

23. The mean of marks obtained by 40 students in a exam is 72.5. But later known that by mistake 47 in written instead of 84. Find the correct mean.

- (A) 78.25
(B) 60.25
(C) 72.70
(D) 73.4

- A. (D)
B. (B)
C. (C)
D. (A)

Ans. A

$$\text{Sol. } (\Sigma 40)/40 = 72.5$$

47 is written instead of 84

therefore the error is of $(84 - 47) = 37$

and it will affect the average by $37/40 = +0.925$

$$\text{New average} = 72.5 + 0.925 = 73.4$$

24. In a company 10 employees get a salary of Rs.36,200 each and 15 employees get a salary of Rs.33,550 each. What is the average salary of the employees in the company?

- (A) Rs.34610
(B) Rs.34640
(C) Rs.35610
(D) Rs.32610

- A. (B)
B. (C)
C. (D)
D. (A)

Ans. D

Sol.

$$\begin{aligned} \text{Average salary} &= \frac{10 \times 36200 + 15 \times 33550}{25} \\ &= \frac{362000 + 503250}{25} \\ &= 34610 \text{ rs.} \end{aligned}$$

25. Raj scored 67, 69, 78 and 88 marks in four subjects. How many marks should he score in 5th subject to equal the overall average of 80 marks?

- (A) 89
(B) 92
(C) 98
(D) 100

- A. (C)
B. (A)
C. (D)
D. (B)

Ans. A

Sol.

Lasr score of 5th subject be x

Now ,

$$\frac{67 + 69 + 78 + 88 + x}{5} = 80$$

$$302 + x = 400$$

$$x = 98$$

26. The sum of three consecutive numbers is 126. Find the highest number.

- (A) 41
(B) 42
(C) 43
(D) 44



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- A. (D)
B. (A)
C. (B)
D. (C)

Ans. D

Sol.

Let the three numbers be $a-1$, a , $a+1$

$$a-1 + a + a+1 = 3a = 126$$

$$a=42$$

$$\text{Highest number} = a+1 = 43$$

27. The product of two positive integer is 375. If one no is divided by another one then $5/3$ remains. What is the smallest number?

- (A) 15
(B) 25
(C) 20
(D) 12

- A. (C)
B. (B)
C. (A)
D. (D)

Ans. C

Sol. Let the numbers be a and b

$$a/b = 5/3$$

Let a be $5x$ and b be $3x$

$$ab = 15x^2 = 375$$

$$x^2 = 25$$

$$\text{or } x = 5$$

So the numbers are

$$5x \text{ and } 3x$$

$$= 25 \text{ and } 15$$

Smallest number is 15

28. There are 25 questions in an exam. 4 marks are given for each correct answer and 2 marks are deducted for each wrong answer. If Seema scored 70 marks, how many questions are right?

- (A) 10
(B) 15
(C) 20
(D) 22

- A. (A)
B. (C)
C. (D)
D. (B)

Ans. B

Sol. Let n be the no. of correct questions

$$4n - 2(25-n) = 70$$

$$n=20$$

29. The average of marks scored by James in Math, Science and History is 89. The average is lowered to 88.25 if the marks of language is also added. Calculate the marks in language obtained by him.

- (A) 90
(B) 82
(C) 86
(D) 83

- A. (C)
B. (B)
C. (A)
D. (D)

Ans. A

Sol. Total marks excluding language = $89 \times 3 = 267$

$$\text{Total marks including language} = 88.25 \times 4 = 353$$

$$\text{Marks in language} = 353 - 267 = 86$$

30. The Arithmetic mean of 20 inspections is 15.5 it was found later that 24 was read as 42 by mistake. Then find the correct mean?

- (A) 14
(B) 14.4
(C) 14.6
(D) 15

- A. (A)
B. (D)
C. (C)
D. (B)

Ans. C

Sol. Incorrect total sum = $20 \times 15.5 = 310$
Since 24 is misread as 42

$$\text{Correct sum} = 310 + 24 - 42 = 292$$

$$\text{Correct mean} = 292/20 = 14.6$$

31. The sum of three consecutive even number is 42. Find the middle number

- (A) 12
(B) 18
(C) 16
(D) 14

- A. (D)
B. (B)
C. (C)
D. (A)

Ans. A

Sol. Let the numbers be $a-2, a, a+2$

$$\text{Sum} = 3a = 42$$

$$a = 14$$



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Thus middle number = $a = 14$

32. HCF of two number is 19 and their LCM is 665 . If one number is 95 . Then find second number.

- (A) 19
(B) 133
(C) 190
(D) 77
A. B
B. C
C. D
D. A

Ans. A

Sol. .

LCM \times HCF = 1^{st} no. \times 2^{nd} no.

$$2^{\text{nd}} \text{ No.} = \frac{19 \times 66.5}{95} = 133.$$

33. Find the greatest number which is completely divisible by 15, 18, 27 and 30.

- (A) 870
(B) 900
(C) 810
(D) 780
A. (B)
B. (D)
C. (C)
D. (A)

Ans. C

Sol. LCM of 15, 18, 27 and 30 is 270.

Multiple of 270 among the given options is 810(270*3).

34. Find LCM of 0.63, 2.1, 4.20?

- (A) 63
(B) 12.6
(C) 6.30
(D) 6300
A. (A)
B. (D)
C. (C)
D. (B)

Ans. D

Sol.

LCM of 0.63, 2.1, 4.20,

Or LCM of

$$\frac{63}{100}, \frac{21}{10}, \frac{21}{5}$$

42/10 in simplest form = 21/5

$$= \frac{\text{LCM of Numerator}}{\text{HCF of Denominator}}$$

$$= \frac{63}{5} = 12.6$$

35. HCF of $2x^2 + 5x - 12$ and $x^2 + x - 12$ is $(x - a)$. Then find the value of a .

- (A) -3
(B) -2
(C) -4
(D) 5
A. (D)
B. (C)
C. (B)
D. (A)

Ans. B

Sol.

Since $(x - a)$ is a factor of given equations.

$$x + a = 0 \text{ or } x = -a$$

$$2a^2 + 5a - 12 = 0$$

$$2a^2 + 8a - 3a - 12 = 0$$

$$2a(a + 4) - 3(a + 4) = 0$$

$$a = \frac{3}{2}, -4$$

$$a^2 + a - 12 = 0$$

$$a^2 + 4a - 3a - 12 = 0$$

$$a(a + 4) - 3(a + 4) = 0$$

$$a = -4, 3$$

Hence, $a = -4$

36. Sum of two numbers is 56 and LCM is 105. Find the numbers

- (A) 34, 22
(B) 35, 21
(C) 7, 49
(D) 1, 55
A. (D)
B. (B)
C. (C)
D. (A)

Ans. B

Sol.

Option (B) is satisfying the question's requirements.

Sum of 35 and 21 is 56.

LCM of 35 and 21 is 105.

So, the numbers are 35 and 21



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37. Find the HCF of 1757 and 2259.

- (A) 231
- (B) 241
- (C) 251
- (D) 261

- A. (C)
- B. (A)
- C. (B)
- D. (D)

Ans. A

Sol.

Factors of 1757 = 7×251

Factors of 2259 = $3 \times 3 \times 251$

the HCF of 1757 and 2259 = 251

38. If the product of two numbers is 2400 and their LCM is 96, then their HCF is:

- (A) 35
- (B) 240
- (C) 24
- (D) 25

- A. (D)
- B. (A)
- C. (C)
- D. (B)

Ans. A

Sol.

Product of numbers = LCM \times HCF

$2400 = 96 \times \text{HCF}$

HCF = 25

39. Two numbers are in the ratio 2 : 5 and their HCF is 18. Their LCM is:

- (A) 180
- (B) 36
- (C) 90
- (D) 188

- A. (D)
- B. (A)
- C. (C)
- D. (B)

Ans. B

Sol.

Let the number be $2x$ and $5x$

HCF of $2x$ and $5x = x = 18$

LCM = $10x = 180$

40. If the product of two numbers is 4941 and their LCM is 81, then their HCF is :

- (A) 31
- (B) 60
- (C) 45
- (D) 61

- A. (C)
- B. (B)
- C. (A)
- D. (D)

Ans. D

Sol.

Given that product of two numbers = 4941

LCM = 81

We know that HCF \times LCM = Product of two numbers

$$\text{HCF} = \frac{4941}{81} = 61$$

41. Two numbers are in the ratio 7 : 9 and their HCF is 12. Their LCM is :

- (A) 756
- (B) 84
- (C) 108
- (D) 765

- A. (C)
- B. (D)
- C. (A)
- D. (B)

Ans. C

Sol.

let the numbers are $7x$ and $9x$ respectively

Given is , HCF = 12

Now, HCF of the numbers will be $= x$

Then, $x = 12$

LCM of numbers = $63x$

LCM = $63 \times 12 = 756$

42. The HCF of two numbers is 6 and their LCM is 108. If one of the numbers is 12, then the other is

- (A) 27
- (B) 54
- (C) 48
- (D) 36

- A. (D)
- B. (B)
- C. (A)
- D. (C)

Ans. B

Sol.

HCF of two numbers is 6 and their LCM is 108

Let the second number be N

We know that,

HCF \times LCM = product of two numbers

$6 \times 108 = 12 \times N$

$N = 54$



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43. The HCF of two numbers is 4 and the two other factors of LCM are 5 and 7. Find the smaller of the two numbers.

- (A) 10
- (B) 14
- (C) 20
- (D) 28

- A. (C)
- B. (D)
- C. (A)
- D. (B)

Ans. A

Sol.

Let the two number be $4x$ and $4y$

$$\text{LCM} = 4 \times 5 \times 7$$

Since x and y are coprime numbers

$$x = 5 \text{ and } y = 7$$

$$\text{smaller number} = 4 \times 5 = 20$$

44. Find the L.C.M of 15, 25 and 29

- (A) 2335
- (B) 3337
- (C) 2175
- (D) 2375

- A. (A)
- B. (C)
- C. (D)
- D. (B)

Ans. B

Sol.

$$\text{LCM of } (15, 25, 29) = 3 \times 5 \times 5 \times 29 = 2175$$

45. H.C.D. and L.C.M of two numbers is 3 and 2730 respectively. If 1st number is 78 then find the 2nd number.

- (A) 107
- (B) 103
- (C) 105
- (D) 102

- A. (C)
- B. (D)
- C. (A)
- D. (B)

Ans. A

Sol.

$$\text{HCF} \times \text{LCM} = \text{first number} \times \text{second number}$$

$$3 \times 2730 = 78 \times \text{second number}$$

$$\text{Second number} = 105$$

46. HCF and LCM of two numbers is 7 and 252 respectively. If 1st number is 28 then find the 2nd number.

- (A) 252
- (B) 63
- (C) 126
- (D) 56

- A. (C)
- B. (B)
- C. (D)
- D. (A)

Ans. B

Sol.

Let the second number be x .

We know that,

$$\text{LCM} \times \text{HCF} = \text{Product of two numbers}$$

$$7 \times 252 = 28x$$

$$x = 7 \times 252 / 28 = 63$$

47. Find the LCM of 13, 19, 21 and 22.

- (A) 114114
- (B) 124124
- (C) 141114
- (D) 142214

- A. (C)
- B. (D)
- C. (B)
- D. (A)

Ans. D

Sol.

Since all the numbers are coprime to each other,

$$\text{There LCM will be} = 13 \times 19 \times 21 \times 22 = 114114$$

48. The HCF of 252, 294 and 3×8 is 42, what is #?

- (A) 2
- (B) 4
- (C) 7
- (D) 8

- A. (A)
- B. (D)
- C. (B)
- D. (C)

Ans. D

Sol.

If the hcf of 252, 294, and 3×8 is 42, then each of the number is divisible by 42

In the table of 42, number of digits divisible between 300 and 400 is 336 and 378



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Since the last digit of the required number is 8, the required number is 378
Therefore $\# = 7$

49. There are 8 children in a group. Pencils are in packs containing one dozen. Find the minimum number of packs needed to distribute equal number of pencils to each child?

- (A) 4
(B) 3
(C) 2
(D) 1

- A. (A)
B. (C)
C. (D)
D. (B)

Ans. B

Sol.

A pack contains 12 pencils and the pencils must be distributed equally among 8 children.

Taking LCM of 8 and 12 we get the number of pencils = 24

So the minimum number of packs required = $24/12 = 2$ packs

50. The LCM of two numbers is 78 and ratio of the numbers is 2:3. Then find sum of those numbers.

- (A) 60
(B) 26
(C) 65
(D) 39

- A. (B)
B. (D)
C. (A)
D. (C)

Ans. D

Sol.

Let the two number are $2x$ and $3x$.

LCM of both the numbers is = $6x$

Given $6x = 78$

$x = 13$

Numbers will be 26 and 39

Sum of numbers will be $26 + 39 = 65$.

51. Find the LCM of given data 12, 18, 21 and 28.

- (A) 84
(B) 252
(C) 254
(D) 125

- A. (C)
B. (D)
C. (A)
D. (B)

Ans. D

Sol.

Factors of 12, 18, 21, and 28

$$12 = 2 \times 2 \times 3$$

$$18 = 2 \times 3 \times 3$$

$$21 = 3 \times 7$$

$$28 = 2 \times 2 \times 7$$

$$\text{LCM} = 2 \times 2 \times 3 \times 3 \times 7 = 252$$

52. The HCF of two numbers is 24, Then which can be the LCM of these numbers.

- (A) 118
(B) 144
(C) 128
(D) 136

- A. (B)
B. (C)
C. (A)
D. (D)

Ans. A

Sol. H.C.F is always a factor of L.C.M and, 24 is factor of only 144.

53. Find the greatest common factor of 280 and 144.

- (A) 2
(B) 8
(C) 6
(D) 4

- A. (C)
B. (B)
C. (D)
D. (A)

Ans. B

Sol.

$$280 = 2^3 \times 5 \times 7$$

$$144 = 2^4 \times 3^2$$

$$\text{H.C.F} = 2^3 = 8$$

54. The product of two numbers is 35828 and their HCF is 26. Find their LCM.

- (A) 931788
(B) 689
(C) 1378
(D) 3583

- A. (D)
B. (B)
C. (A)
D. (C)



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Ans. D

Sol.

We know that

Product of two no = HCF \times LCM

Let LCM be = x

Then,

$$x \times 26 = 3.5828$$

$$x = 1378$$

55. Find the G.C.F. and L.C.M. of 20 and 28

(A) 20, 280

(B) 5, 280

(C) 10, 140

(D) 4, 140

A. (A)

B. (B)

C. (D)

D. (C)

Ans. C

Sol.

$$20 = 2^2 \times 5$$

$$28 = 2^2 \times 7$$

$$\text{GCF}(20, 28) = 2^2 = 4$$

$$\text{LCM}(20, 28) = 2^2 \times 5 \times 7 = 140$$

56. A person carries Rs. 165 in the form of currency notes of denominations Rs. 5, Rs. 10 and Rs. 20 in the ratio of 3 : 2 : 1. What is the value of currency notes of Rs. 20 denomination?

(A) Rs. 60

(B) Rs. 100

(C) Rs. 40

(D) Rs. 80

A. (A)

B. (D)

C. (C)

D. (B)

Ans. A

Sol.

Let the no of notes be 3x, 2x, x each

$$5 \times 3x + 10 \times 2x + 20 \times x = 165$$

$$\text{or } 55x = 165$$

$$\text{or } x = 3$$

value of currency notes of Rs. 20 denomination = $20 \times 3 = \text{Rs } 60$

57. Find the H.C.F. of 198 and 78?

(A) 8

(B) 9

(C) 6

(D) 7

A. (D)

B. (B)

C. (C)

D. (A)

Ans. C

$$\text{Sol. } 198 = 2 \times 3^2 \times 11$$

$$78 = 2 \times 3 \times 13$$

$$\text{HCF} = 2 \times 3 = 6$$

58. The product of two number of 2 digits is 2160 LCM is 180. Find out no.?

(A) 72 and 30

(B) 36 and 60

(C) 45 and 48

(D) 54 and 40

A. (C)

B. (D)

C. (B)

D. (A)

Ans. C

Sol. $\text{LCM} \times \text{HCF} = \text{Product of two numbers}$
= 2160

$$\text{HCF} = 2160/180 = 12$$

Let the numbers be 12x and 12y

$$144xy = 2160$$

$$xy = 15$$

Since numbers are of 2 digits

x=3 and y=5 will satisfy the condition

Ans = 36 and 60

59. The largest factor of 360 and 450 is

(A) 90

(B) 45

(C) 10

(D) 9

A. (B)

B. (A)

C. (C)

D. (D)

Ans. B

Sol. largest factor of 360 and 450 =
 $\text{HCF}(360 \text{ and } 450) = 90$

60. Find HCF of 0.32, 2.72, 12.8, 14.4 is

(A) 16

(B) 1.6

(C) 0.16

(D) 2.72

A. (D)

B. (A)

C. (B)

D. (C)



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Ans. D

Sol.

$$0.32 = 0.16 \times 2$$

$$2.72 = 0.16 \times 17$$

$$12.8 = 0.16 \times 80$$

$$14.4 = 0.16 \times 90$$

$$\text{HCF} = 0.16$$

Option D is correct.

61. Find the HCF of 48, 92 and 140.

A. 8

B. 6

C. 4

D. 3

Ans. C

$$\text{Sol. } 48 = 2^4 \times 3$$

$$92 = 2^2 \times 23$$

$$140 = 2^2 \times 5 \times 7$$

$$\text{HCF} = 2^2 = 4$$

62. Find the Greatest Common Factor of 280 and 144:

A. 2

B. 8

C. 6

D. 4

Ans. B

$$\text{Sol. } 280 = 2^3 \times 5 \times 7$$

$$144 = 2^4 \times 3^2$$

So, Greatest Common Factor (HCF) of 280 and 144 = $2^3 = 8$



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