Number system

Number System

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Placement for All.. All for Placement

This Video Completely covers the problems on "Number System" which is more than sufficient for all kind of placement Exams eg: TCS/WIPRO/AMCAT/ELITMUS/CoCubes and all other placement Exams.

Number System by : Pratik Shrivastava(10 years of industry experience and best Aptitude trainer)

[Number System]

Q1. 2/3 of three-fourth of a number is ?

a. ½ of the number b. 1/3 of the number c.8/9 of the number d.17/12 of the number

Solution:

$\Rightarrow \frac{2}{3} \times \frac{3}{4} \times N$

$\frac{1}{2}$ of N

Number System

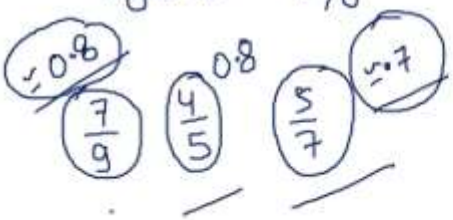
Q2. Which of the following fraction is the smallest and which is highest?

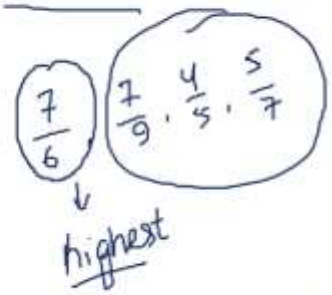
7/6, 7/9, 4/5 , 5/7

Solution:

Smallest - 5/7

highest - 7/6





$\frac{7}{6}$ N>D $\frac{6}{6}=1$ $\frac{7}{6}>1$

Number System

Q3. A man spends 1/4th of his income on food, 2/3rd of it on house rent and the remaining income which is Rs. 630 on the other commodities. Find his house rent.

a. Rs.5040 b.Rs.3520rs c.Rs.4890 d.Rs. 4458

Solution:

(LCM of 4, 3 = 12) 12rs

$\frac{1}{4}$ → food

$12 \times \frac{1}{4}$: 3rs food

$\frac{2}{3}$ → Rent

$12 \times \frac{2}{3}$ = 8rs food Rent

12rs − (3rs + 8rs) : 12 − 11 : 1rs

1rs —— 630

8 —— 630 × 8

: 5040

Number System

Q4. How many natural numbers divisible by 7 are there between 3 and 200?

a. 27 b.28 c.29 d.36

Solution:

3, 4, 5, 6, 7, 8, 9 ..... 195, 196, 197, 198, 199, 200

7, 14, 21, 28 196

No. of terms.

$\Rightarrow \frac{(l-a)}{\text{diff}} + 1$

$\frac{196-7}{7} + 1$

$\frac{189}{7} + 1$

27 + 1 = 28

$\frac{196}{7} = 28$

$196 = 14^2$

14×14

7 | 28

Number System

Q5. The difference between a two-digit number and the number obtained by interchanging the two digits of the numbers is 36. What is the difference between the two digits of the number?

1) 6 2) 4 3) 3

4) Cannot be determined 5) none of these

Solution:

Two digit no: xy

or

10x + y

10y + x

$\Rightarrow 10x + y - (10y + x) = 36$

$10x + y - 10y - x = 36$

$9x - 9y = 36$

$x - y = \frac{36}{9} \Rightarrow x - y = 4$

34 − two digit no

10 × 3 + 4

Place

134

unit digit

tens digit

100 digit

Number System

Q6) When a number is divided by 56 the remainder obtained is 29. What will be the remainder when the number is divided by 8.

a.4 b.5 c.3 d.7

10sec ✓ Trick

Solution:

Remainder $\frac{29}{8}$ = 5

Number System

Q7) 800 chocolates were distributed among the students of a class. Each students got twice as many chocolates as number of students in the class. The number of students in the class is?

1) 25 2) 30 3) 35

4) 20 5) none of these

option 1-2

$30 \times 60 = 1800$

1 student, 2

Solution:

$2 \times 20 = 40$ Let us assume

20×40

800

No. of Student = x ✓ $\Rightarrow 20$

total no of chocolates = $x \times 2x$

$\Rightarrow 800 = 2x \times x$

$x^2 = 400$

$x = 20$

Number System

Q8. A number of friends decided to go on picnic and planned to spend Rs.108 on eatables. Three of them however did not turn up. As a consequence each one of the remaining had to Contribute Rs. 3 extra. The number of them who attended the picnic was?

1) 15 2) 12 ✓ 3) 9

4) 6 5) none of these

Solution:

Option (Easy)

3

12 planned = $\frac{108}{12}$ = 9rs

9 picnic = $\frac{108}{9}$ = 12rs

3rs

-3 15

12

$\frac{108}{15}$ =

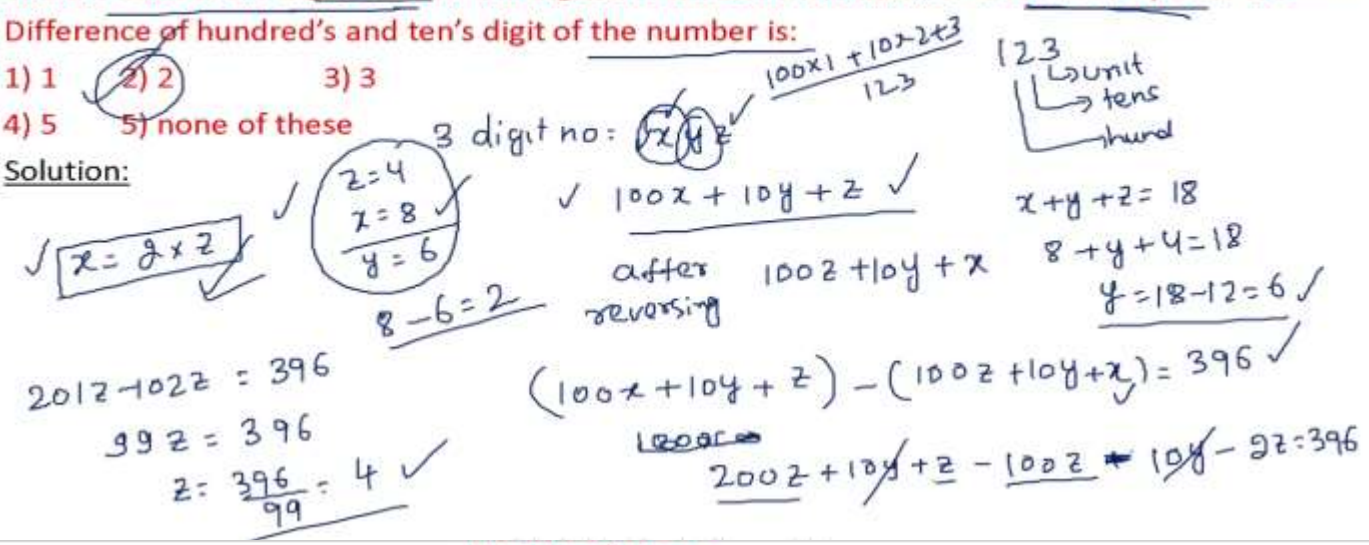
x $\frac{108}{15}$

Number System

Q9. In a three digit number, the digit at hundred's place is two times the digit at the unit's place and the sum of the digits is 18. If the digits are reversed the number is reduced by 396. The Difference of hundred's and ten's digit of the number is:

1) 1 2) 2 3) 3
4) 5 5) none of these

Solution:

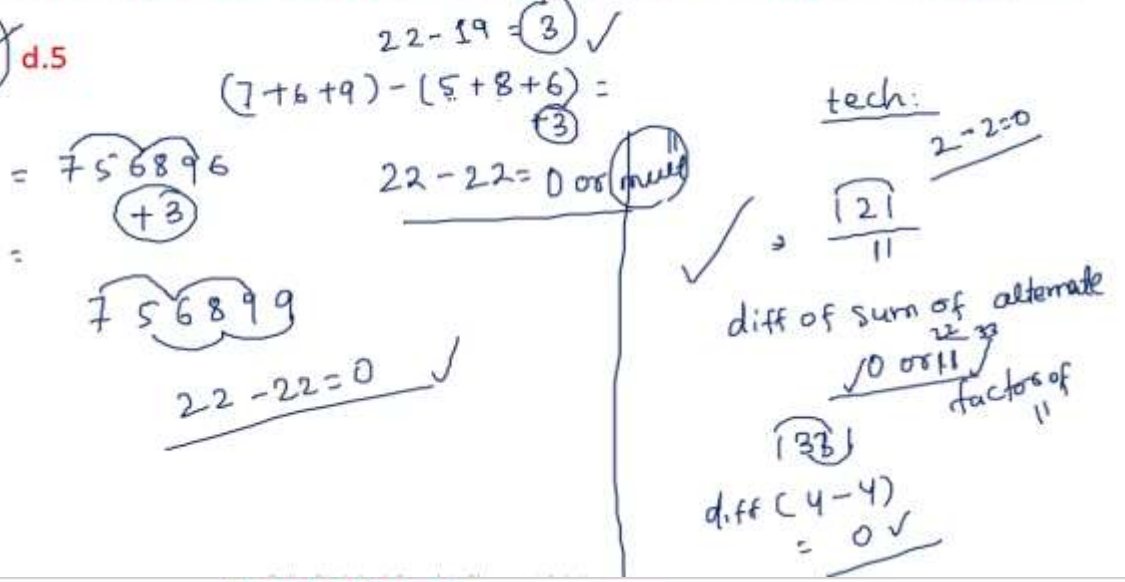


Number System

Q10. The smallest number, which should be added to 756896 so as to obtain a multiple of 11, is:

a.1 b.2 3.3 d.5

Solution:

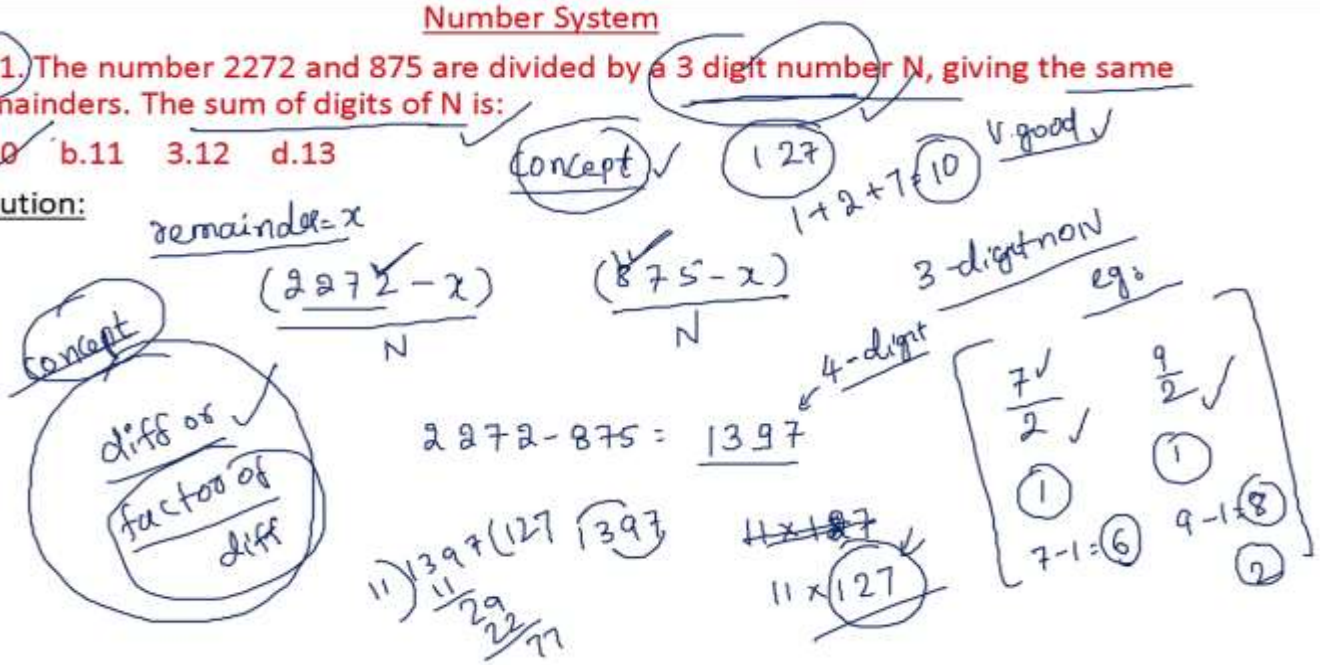


Number System

Q11. The number 2272 and 875 are divided by a 3 digit number N, giving the same remainders. The sum of digits of N is:

a.10 b.11 3.12 d.13

Solution:

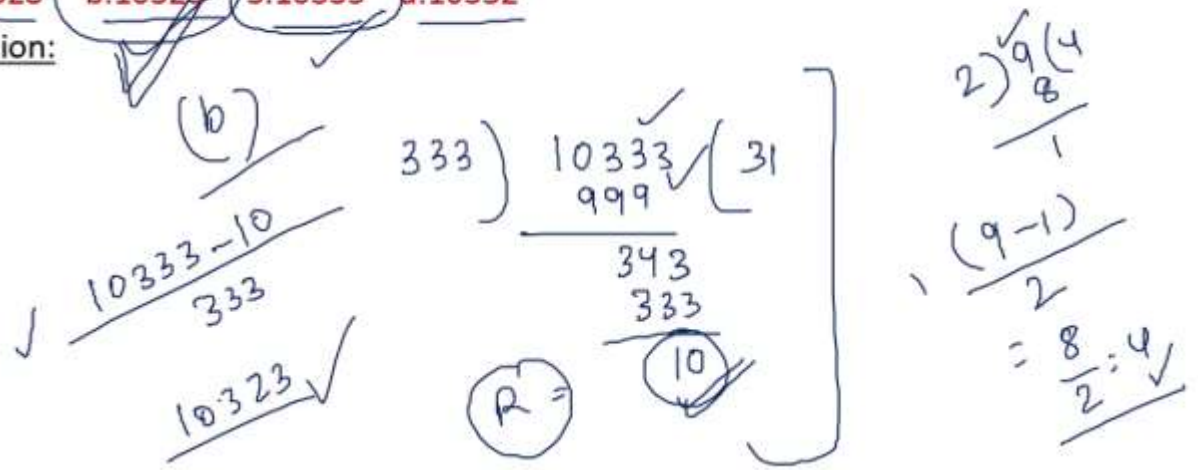


Number System

Q12. Find the least number of 5digits which is divisible by 333.

a.10328 b.10323 3.10333 d.10332

Solution:

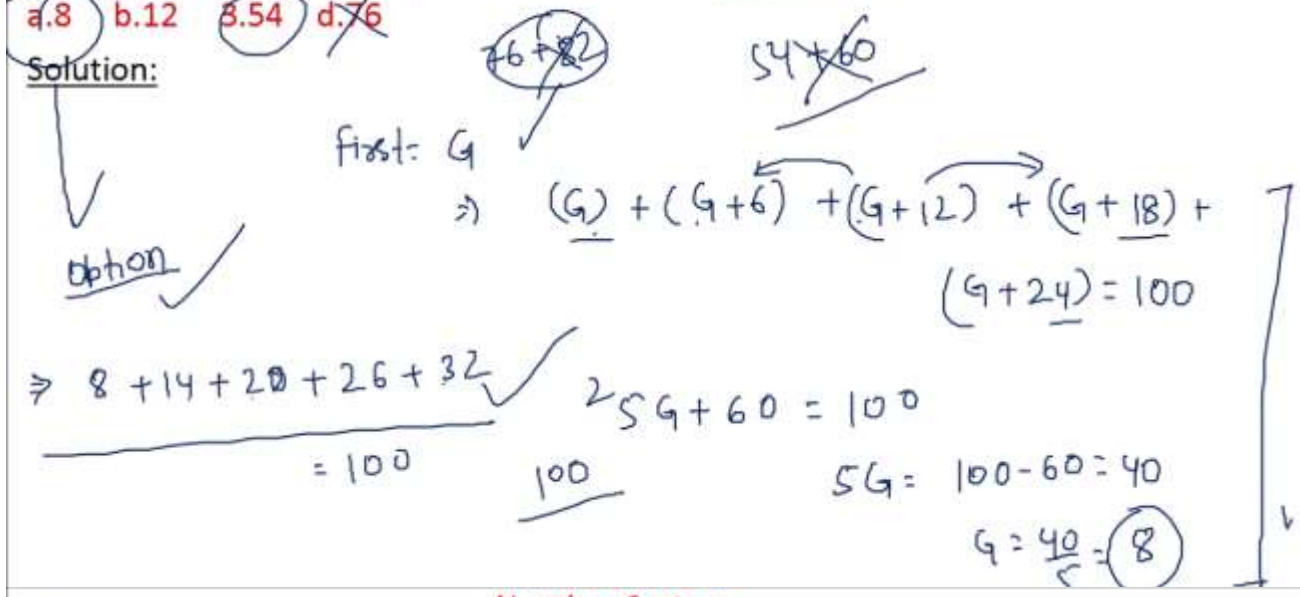


Number System

Q13. A man ate 100 grapes in 5days. Each day, he ate 6 more grapes than those he ate on earlier day. How many grapes did he eat on the first day?

a.8 b.12 3.54 d.76

Solution:

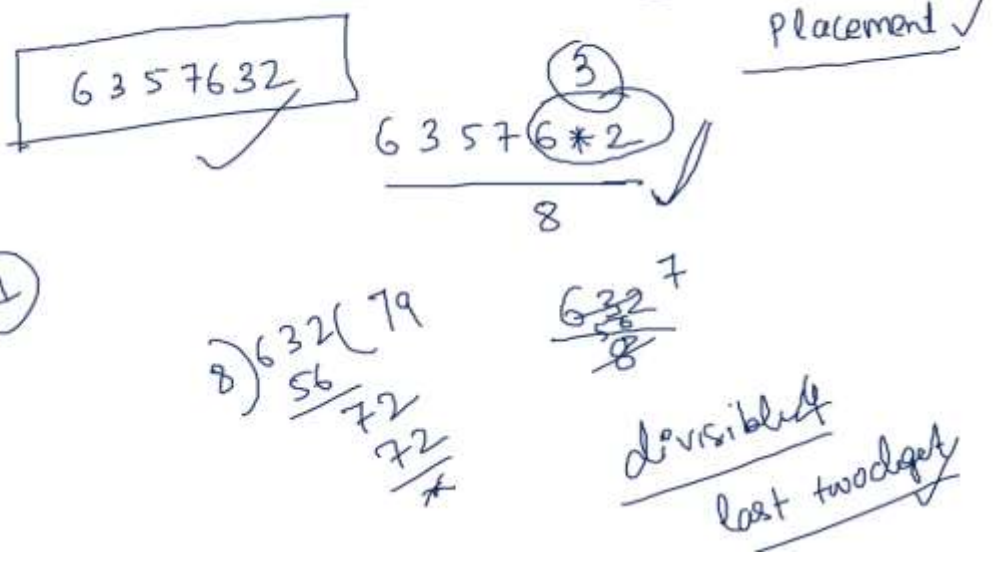


Number System

Q14. What least number must be assigned to * so that the number 63576*2 is divisible by 8?

a.3 b.5 3.7 d.8

Solution:



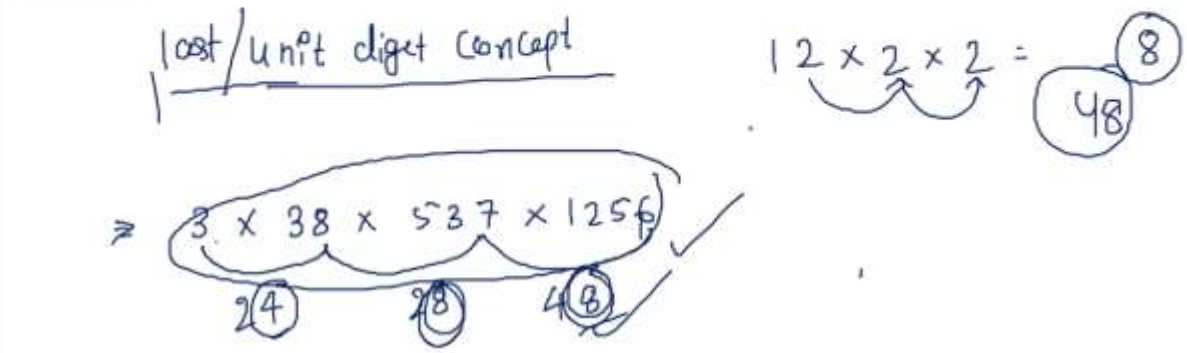
Number System

Q15 The multiplication of the product is

3 x 38 x 537 x 1256

a. 7,68,89,808 b. 7,68,89,802 3. 7,68,89,804 d. 7,68,89,806

Solution:

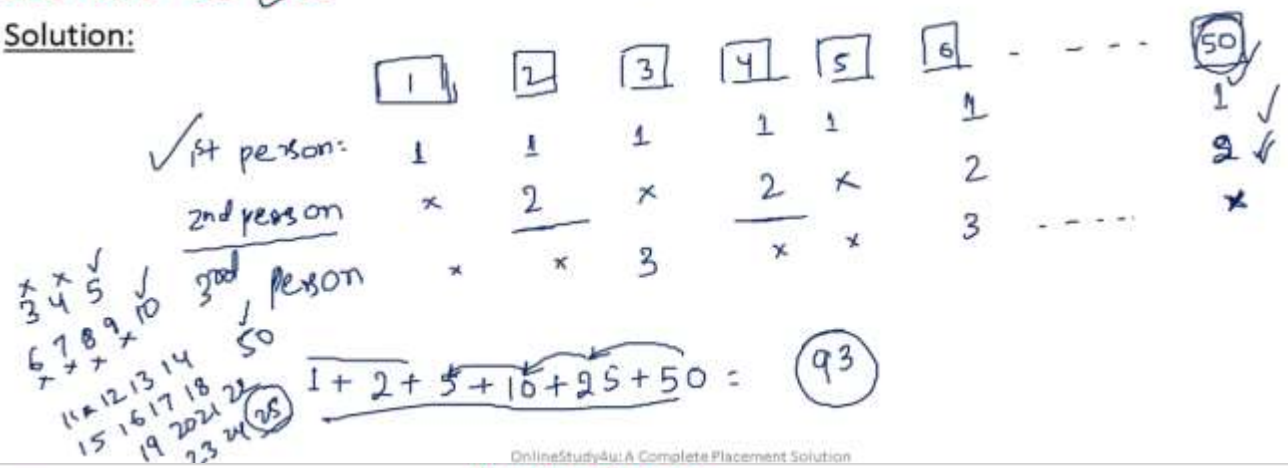


Number System

Q16 There are 50boxes and 50 persons. Person 1 keeps 1 marble in every box, person 2 keeps 2 marbles in every 2nd box, person 3 keeps 3 marbles in every 3rd box. This process goes on till person 50 keeps 50marbles in the 50th box. Find the total number of marbles kept in the 50th box.

a.43 b.78 c.6 d.93

Solution:

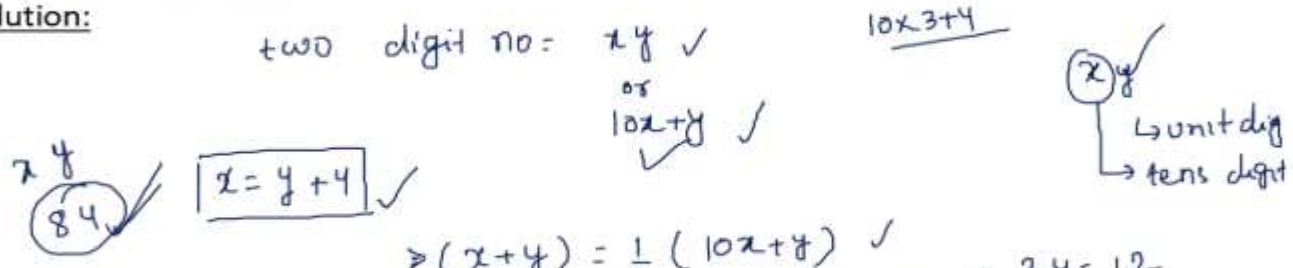


Number System

Q17. In a two digit number , tens digit is four more than unit digit, and sum of two digit number is 1/7 times of that number. Find out the unit digit of that number?

a.5 b.4 3. 3 d. 1

Solution:



Number System

Q18. The smallest whole number that is to be multiplied with 59535 to make a perfect square number is x. The sum of digits of that number is?

a.5 b. 6 3. 7 d. 8

Solution:

Simple

Sum of x

59535 × x

15

1+5=6

59535 = 3×3 × 3×3 × 5 × 7×7

59535 × 15 = 3×3 3×3 7×7 5×5 3×3

3	59535
3	19845
3	6615
3	2205
3	735
5	245
7	49
	7

Number System

Q19. In a farm there are cows and hens. if heads are counted there are 180, if legs are counted there are 420. The number of cows in the farm is?

a.130 b. 50 3. 150 d. 30

Solution:

Let no of hen: h
no. of cow: c

farm

cow	hens
1H	1H
4L	2L

c + h = 180 — (i) ×2 4c + 2h = 420 (2)

4c + 2h = 420
2c + 2h = 360
2c = 60

2c = 60
c = 30

Number System

Q20. In a Parking lot there are two types of vehicle, two whellers and four whellers. The total number of the vehicles in the parking lot is 200. when the number of the wheels of all the vehicles is counted, it is counted to be 580. Find the total number of the four whellers vehicle in the parking lot.

a.110 b. 90 3. 100 d. 180

Solution:

Total no of wheels: 580

Parking lot (200)

2 2W 4W

option attack,

wheels

90 four wheellers = 90 × 4 = 360

110 two wheellers = 110 × 2 = 220

580

Two whell = (200 − 90)
110