1. Out of 11 persons, 10 persons spent Rs. 35 each for their meals. The 11th one spent Rs. 40 more than the average expenditure of all the nine. The total money spent by all of them was:
a) Rs. 492.50

b) Rs. 497.50

c) Rs. 429

d) Rs. 498.50

Answer: c

Explanation: Let the average expenditure be Rs. x Then,
$11x = 10 \times 35 + (x + 40)$ or $11x = x + 390$ or $10 x = 390$ or $x = 39$

Total money spent = 11x = Rs. (11 × 39) = Rs 429

2. Find the L.C.M. of 108/375, 1(17/25), 54/55 =
a) 678/5

b) 289/5

c) 151(1/5)

d) 238 (3/5)

Answer: c

Explanation: $108/375 = 36/125$
$1(17/25) = 42/25$

Thus fractions are

36/125, 42/25 & 54/55

∴ Required L.C.M. = L.C.M. of 36, 42 & 54/H.C.F. of 125, 25, 55

=756/5 = 151(1/5)

3. The average age of husband, wife and their child 5 years ago was 26 years and that of wife and the child 6 years ago was 24 years. The present age of the husband is:
a) 35 years

b) 33 years

c) 50 years

d) None of these

Answer: b

Explanation: Sum of the present ages of husband, wife and child = (26 x 3 + 5 x 3) years = 93 years.
Sum of the present ages of wife and child = (24 x 2 + 6 x 2) years = 60 years.

Husband's present age = (93 - 60) years = 33 years

4. Consider the following matrix:

2	5	7	8	?	1
2	20	42	56	72	0

What is the missing number in the given matrix?
a) 5

b) 0

c) 7

d) 9

Answer: d

Explanation: In each column, let the number at the top be 'a' and the one at the bottom be 'b'.
The relation between them is as follows: b = a (a- 1). Thus the missing number is 9.
So, Kamal is 13th from Manish.

5. A tap can fill a tank in 36 minutes and another can empty it in 18 minutes. If the tank is already half full and both the taps are opened together, the tank will be:
a) Filled in 9 minutes

b) Filled in 18 minutes

c) Emptied in 12 minutes

d) Emptied in 18 minutes

Answer: d)
Explanation: A pipe filled a tank in 36 minutes and another emptied in 18 minutes. Tank is half full, time taken to fill the half tank = (1/36) – (1/18) = (-2/72) × (2/1) = -1/18, implies it will empty it in 18 minutes.

6. The ages of Rahul and Sumit are in the ratio of 3: 7 respectively. After 5 years the ratio of their ages will be 1: 2. What is the difference in their ages?

a) 2 years

b) 8 years

c) 20 years

d) 12 years

Answer: c)
Explanation: Let the ages of Rahul and sumit be 3x and 7x respectively.
According to question,

3x + 5/7x + 5 = 1/2 = x = 5

Difference in their ages = 7x – 3x = 4x = 20 years.

7. $64^4 \div 8^5$
a) 4096

b) 512

c) 64

d) 8

Answer: b)
Explanation: $(8^2)^4/8^5$= 512

8. The average age of a committee of 6 is 40. If a member aged 30 resigns and a person aged 21 becomes a member, then the average age of the new committee is:
a) 30

b) 38.5

c) 40

d) 42

Answer: b)
Explanation: Sum of 6 members = 40 X 6 = 240 years
∴sum of remaining 5 members = 200 – 30 =210 years

New sum of 6 members = 210 + 21 = 231 years

∴ Average age of new committee = 231/6= 38.5 years

9. Ram's expenditure and savings are in the ratio 7: 3. His income increases by 20%. If his saving also increases by 12%, by how much percentage would his expenditure increases?
a) 22.45%

b) 34.34%

c) 25.12%

d) 26.85%

Answer: b)
Explanation: Let Mohan's expenditure = 7x
Mohan's savings = 3x

Therefore income = 10 x

New income = 10x +20% of 10x = 10x+2x= 12x.

New savings = 3x+ 12% of 3x = 3.12 x

New expenditure = 8.88 x.

Percentage increase in expenditure = (8.88x – 7x/7x) × 100 = (1.88/7) × 100 = 26.85%

10. If 5 boys eats 18 apples in 9 days, how long at the same rate will 66 apples last for 15 boys?
a) 15 days

b) 13 days

c) 8 days

d) 11 days

Answer: d)
Explanation: Let number of days be = D

Boys	Apples	Days
5	18	9
15	66	D

∴Required days = 9 X (5/15) X (66/18) = 11 days