Date Interpretation Table Chart Questions for SBI PO Pre, IBPS PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

DI Table Chart Quiz 77

Directions: Study the following table chart carefully and answer the questions given beside:

Ram has 5000 litres of pure milk. He sells 40% of the total milk to six different persons(A,B,C,D,E,F) and the remaining 60% of total milk he utilizes in his own shop. Each person, A, B, C, D, E, and F mixes water in pure milk. The following table given below shows the sales of milk to six different persons by Ram as a percentage of total sales and it also shows the concentration of water after adding water in pure milk by each of the six persons.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24%	24%
B	10%	10%
C	12%	18%
D	7%	15%
E	28%	25%
F	19%	12%

1. What is the difference between the total quantity of water added by Person A and that of Person C? (approximately)

A. 105 liters   B. 99 liters   C. 91 liters   D. 95 liters   E. 102 liters

2. What is the respective ratio of the total quantity of water added by Person C and the total quantity of water added by Person E?

A. 81 : 287   B. 9 : 32   C. 3 : 11   D. 85 : 287   E. None of these

3. Who among the following added least quantity (In litres) of water in pure milk?

A. A   B. B   C. C   D. E   E. F

4. Suppose, A, B, and C mix their solutions in one can then what would be the concentration of milk in the new solutions? (approximately)

A. 75.2%   B. 78.21%   C. 80.25%   D. 85.24%   E. 72.68%

5. How many total litres of water was added by all the persons together? (approximately)

A. 500 litres   B. 550 litres   C. 450 litres   D. 490 litres   E. 520 litres

6. Suppose, all of them mixed the solution together in one can and boiled it then 200 litres of water were evaporated then what is the concentration of pure milk in the new solution? (approximately)

A. 92.28%   B. 85.24%   C. 91.42%   D. 78.45%   E. 87.34%

Correct Answers:

1	2	3	4	5	6
B	A	B	C	D	E

Explanations:

1.   40% of 5000 = 2000 litres Ram sells to six persons

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24%
B	10% of 2000 = 200 litres	10%
C	12% of 2000 = 240 litres	18%
D	7% of 2000 = 140 litres	15%
E	28% of 2000 = 560 litres	25%
F	19% of 2000 = 380 litres	12%

Let Person A add 'a' litres of water then the total quantity of solution = 480 + 'a' litres, in which the concentration of water is 24%

Therefore, 24% of (480 + a) = a

100a = 24 × 480 + 24a
76a = 24 × 480

A = 2880/19 litres = approximately 151.58 litres = Quantity of water added by Person A

Similarly, Let the person C add c litres of water then

18% of (240 + c) = c
82c = 240 × 18

$C = \dfrac{2160}{41}$ litres = 52.68 litres approximately = quantity of water added by person C

The required difference = 151.58 – 52.68 = 98.9 litres = approximately 99 litres
Hence, option B is correct.

2. Let the person C add c litres of water then

18% of (240 + c) = c

82c = 240 × 18

$C = \dfrac{2160}{41}$ litres = 52.68 litres approximately

= quantity of water added by person C

Let the person E add e litres of water

Then, 25% of (560 + e) = e

75e = 560 × 25

$E = \dfrac{560}{3}$ litres = quantity of water added by person E

Reqd. ratio $= \dfrac{2160}{41} : \dfrac{560}{3} = 81 : 287$

Hence, option A is correct.

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3. Let Person A add 'a' litres of water then the total quantity of solution = 480 + 'a' litres, in which the concentration of water is 24%

Therefore, 24% of (480 + a) = a

100a = 24 × 480 + 24a

76a = 24 × 480

$a = \dfrac{2380}{19}$ litres = approximately 151.58 litres

= Quantity of water added by Person A

Let the person B add b litres of water then,

10% of (200 + b) = b

b = quantity of water added by Person B

$= \dfrac{200}{9}$ litres = approximately 22.22 litres

Let the person C add c litres of water then

18% of (240 + c) = c

82c = 240 × 18

$C = \dfrac{2160}{41}$ litres = 52.68 litres approximately

= quantity of water added by person C
Let the person D add d litres of water

15% of (140 + d) = d

$d = \dfrac{140 \times 15}{85} = 24.70$ litres

= quantity of water added by person D
Let the person E add e litres of water

Then, 25% of (560 + e) = e

75e = 560 × 25

$E = \dfrac{560}{3}$ litres = 186.67 litres approximately

= quantity of water added by person E
Let the person F add f litres of water then,

12% of (380 + f) = f
88f = 380 × 12
f = 51.82 litres = quantity of water added by person F
therefore, B added least quantity (In litres) of water
Hence, option B is correct.

4.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24% = 151.58 litres
B	10% of 2000 = 200 litres	10% = 22.22 litres
C	12% of 2000 = 240 litres	18% = 52.56 litres

When A, B, and C mix their solution in one can then the quantity of milk in the new solution = 480 + 200 + 240 = 920 litres

And the quantity of milk in the new mixture = 151.58 + 22.22 + 52.56 = 226.36 litres
The total quantity of new solution = 920 + 226.36 = 1146.36 litres
The required concentration of milk in the new solution

$= \dfrac{920 \times 100}{1146.36} = 80.25\%$ approximately

Hence, option C is correct.

5.

Person	Sales of Milk	The concentration of water (After adding water in pure milk)
A	24% of 2000 = 480 litres	24% = 151.58 litres
B	10% of 2000 = 200 litres	10% = 22.22 litres
C	12% of 2000 = 240 litres	18% = 52.68 litres
D	7% of 2000 = 140 litres	15% = 24.70 litres
E	28% of 2000 = 560 litres	25% = 186.67 litres
F	19% of 2000 = 380 litres	12% = 51.82 litres

The total quantity of water added by all the persons together = 151.58 + 22.22 + 52.68 +24.70 + 186.67 + 51.82 = approximately 489.67 litres = approximately 490 litres

Hence, option D is correct.

6.   The total quantity of milk = 2000 litres

The total quantity of water = approximately 490 litres

The total quantity of solution = 2000 + 490 = 2490 litres approximately

When 200 litres of water were evaporated then the remaining quantity of water = 2490 – 200 = 2290 litres

The concentration of pure milk in the new solution

$= \dfrac{2000 \times 100}{2290}$ = approximately 87.34%

Hence, option E is correct.