

Course: RBI ASSISTANT Mains

Subject: : Miscellaneous DI, Approximation and Missing Series

Time:15 Minutes

Published Date: 18th June 2020

Directions (1-5): What will come at the place of question mark (?) in the following questions?

Q1. 7, 14, 42, 210, ?, 16170

(a) 1630

(b) 1540

(c) 1760

(d) 1470

(e) 1980

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Amit Kumar Singh

Q2. ?, 80, 63, 48, 35, 24

(a) 111

(b) 101

(c) 99

(d) 125

(e) 108

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Amit Kumar Singh

Q3. 789, 790, ?, 825, 889, 1014

(a) 807

(b) 814

(c) 798

(d) 820

(e) 800

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Amit Kumar Singh

Q4. 4, 7, 15, 30, 54, ?

(a) 79

(b) 89

(c) 62

(d) 98

(e) 112

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Amit Kumar Singh

Q5. 1811, 1792, 1775, ?, 1751, 1744

- (a) 1771
- (b) 1763
- (c) 1756
- (d) 1767
- (e) 1762

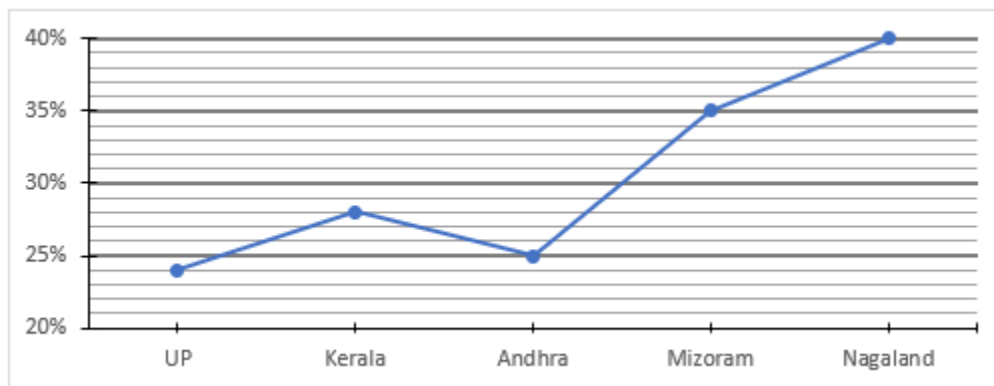
L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Amit Kumar Singh

Directions (6-10): Table given below shows total players in five states and ratio of Football players to Badminton Players and the line graph shows percentage of Hockey players out of total players (Hockey, Football and Badminton). Read both table and line graph carefully and answer the questions:

State	Total players	Ratio of Football to Badminton Players
U.P.	2400	7 : 5
Kerala	1250	7 : 8
Andhra	1900	3 : 2
Mizoram	2100	7 : 6
Nagaland	1450	3 : 2



Q6. If ratio of male to female badminton players in state Mizoram is 5 : 4, then female badminton players in Mizoram is what percent of total Hockey players in same state?

- (a) $37\frac{8}{21}\%$
- (b) $35\frac{11}{21}\%$
- (c) $32\frac{3}{21}\%$
- (d) $38\frac{2}{21}\%$

(e) $35\frac{4}{21}\%$

L1Difficulty 3

QTags Miscellaneous DI

QCreator Amit Kumar Singh

Q7. Football players from state Kerala and Mizoram together is how many more or less than Hockey players from state UP and Andhra together?

(a) 104

(b) 91

(c) 95

(d) 110

(e) 93

L1Difficulty 3

QTags Miscellaneous DI

QCreator Amit Kumar Singh

Q8. Find the ratio between badminton players from Nagaland to badminton players from Kerala?

(a) 57 : 80

(b) 29 : 40

(c) 27 : 40

(d) 40 : 27

(e) 40 : 29

L1Difficulty 3

QTags Miscellaneous DI

QCreator Amit Kumar Singh

Q9. Find the total number of Football players from state UP and Kerala together and Badminton players from state Andhra and Nagaland together?

(a) 2627

(b) 2508

(c) 2402

(d) 3035

(e) 2480

L1Difficulty 3

QTags Miscellaneous DI

QCreator Amit Kumar Singh

Q10. In another state Maharashtra, total players who play these sports is 20% more than total players in Nagaland. If ratio of Hockey players and Football players in state Nagaland to state Maharashtra is 116 : 83 and 174 : 145 respectively then find total number of badminton players in Maharashtra?

(a) 850

(b) 870

(c) 890

(d) 910

(e) 930

L1Difficulty 3

QTags Miscellaneous DI

QCreator Amit Kumar Singh

Directions (11-15): What approximate value will come in place of question mark (?) in the given questions: (You are not expected to calculate the exact value.)

Q11. ? % of $(140.06 \times 7.99 - 679.92) = 330.01$

(a) 75

(b) 90

(c) 80

(d) 50

(e) 60

L1Difficulty 3

QTags Approximation

QCreator Amit Kumar Singh

Q12. 40% of $859.9 + 87.89 \div 7.99 = ?$

(a) 398

(b) 286

(c) 412

(d) 215

(e) 355

L1Difficulty 3

QTags Approximation

QCreator Amit Kumar Singh

Q13. $619.992 - 134.99 \div 14.998 - (9.01)^2 = ?$

(a) 720

(b) 530

(c) 650

(d) 690

(e) 490

L1Difficulty 3

QTags Approximation

QCreator Amit Kumar Singh

Q14. $449.97 \div 15.02 + 208.08 \div 8.01 - 16.01 = ?$

(a) 120

(b) 60

(c) 100

(d) 80

(e) 40

L1Difficulty 3

QTags Approximation

QCreator Amit Kumar Singh

Q15. $4^2 \times \sqrt{226} = 239.998 \div 8.001 + 929.99$

(a) 4

(b) 5

(c) 2

(d) 3

(e) 1

L1Difficulty 3

QTags Approximation

QCreator Amit Kumar Singh

Solutions

S1. Ans.(d)

Sol.

$$7 \times 2 = 14$$

$$14 \times 3 = 42$$

$$42 \times 5 = 210$$

$$210 \times 7 = 1470$$

$$1470 \times 11 = 16,170$$

S2. Ans.(c)

Sol.



S3. Ans.(c)

Sol.

$$789 + (1)^3 = 790$$

$$790 + (2)^3 = 798$$

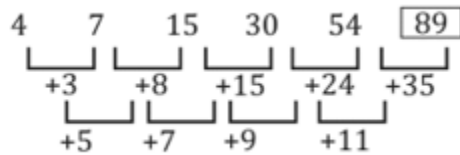
$$798 + (3)^3 = 825$$

$$825 + (4)^3 = 889$$

$$889 + (5)^3 = 1014$$

S4. Ans.(b)

Sol.



S5. Ans.(e)

Sol.

$$1811 - 19 = 1792$$

$$1792 - 17 = 1775$$

$$1775 - 13 = 1762$$

$$1762 - 11 = 1751$$

$$1751 - 7 = 1744$$

S6. Ans.(d)

Sol.

Badminton players in state Mizoram

$$= \left(2100 - \frac{35}{100} \times 2100 \right) \times \frac{6}{13}$$

$$= 1365 \times \frac{6}{13}$$

$$= 630$$

$$\text{Required percentage} = \frac{630 \times \frac{4}{9}}{21 \times 35} \times 100$$

$$= 38 \frac{2}{21} \%$$

Or

Let total players in Mizoram = $100x$

So, Hockey players = $35x$

And Football and Badminton players

are $\frac{65}{13} \times 7x$ and $\frac{65}{13} \times 6x$ respectively

$$\text{Required percentage} = \frac{30x \times \frac{4}{9}}{35x} \times 100$$

$$= \frac{30 \times 4}{35 \times 9} \times 100$$

$$= \frac{40}{105} \times 100$$

$$= 38 \frac{2}{21} \%$$

S7. Ans.(a)

Sol.

Football player from Kerala

$$= \left(1250 - 1250 \times \frac{28}{100}\right) \frac{7}{15}$$
$$= 420$$

Football player from Mizoram

$$= \left(2100 - 2100 \times \frac{35}{100}\right) \frac{7}{13}$$
$$= 735$$

Football players from Kerala and Mizoram together

$$= 420 + 735 = 1155$$

$$\text{Hockey player from U.P.} = 2400 \times \frac{24}{100} = 576$$

$$\text{Hockey player from Andhra} = 1900 \times \frac{25}{100} = 475$$

$$\text{Hockey player from UP and Andhra together} = 576 + 475 = 1051$$

$$\text{Required difference} = 1155 - 1051 = 104$$

S8. Ans.(b)

Sol.

$$\text{Badminton player from Nagaland} = \left(1450 - 1450 \times \frac{40}{100}\right) \times \frac{2}{5} = 348$$

$$\text{Badminton player from Kerala} = \left(1250 - 1250 \times \frac{28}{100}\right) \times \frac{8}{15} = 480$$

$$\text{Required Ratio} = \frac{348}{480} = \frac{29}{40}$$

S9. Ans.(c)

Sol.

Football players from state UP and Kerala together

$$= \left(2400 - 2400 \times \frac{24}{100}\right) \times \frac{7}{12} + \left(1250 - 1250 \times \frac{28}{100}\right) \times \frac{7}{15}$$

$$= 1064 + 420$$

$$= 1484$$

Badminton player from state Andhra and Nagaland

$$= \left(1900 - 1900 \times \frac{25}{100}\right) \times \frac{2}{5} + \left(1450 - 1450 \times \frac{40}{100}\right) \times \frac{2}{5}$$

$$= 570 + 348$$

$$= 918$$

$$\text{Required sum} = 1484 + 918 = 2402$$

S10. Ans.(c)

Sol.

Total players in Maharashtra

$$= \frac{120}{100} \times 1450$$

$$= 1740$$

Hockey players in Nagaland

$$= 1450 \times \frac{40}{100}$$

$$= 580$$

Hockey players in Maharashtra

$$= \frac{580}{116} \times 83$$

$$= 415$$

Football players in Nagaland

$$= \left(1450 - 1450 \times \frac{40}{100} \right) \times \frac{3}{5}$$

$$= 522$$

Football players in Maharashtra

$$= \frac{522}{174} \times 145$$

$$= 435$$

Badminton players in Maharashtra

$$= 1740 - 415 - 435$$

$$= 890$$

S11. Ans.(a)

Sol.

$$?\% \text{ of } (140.06 \times 7.99 - 679.92)$$

$$= 330.01$$

$$\text{or, } \frac{? \times (140 \times 8 - 680)}{100} \approx 330$$

$$\text{or, } ? \times (1120 - 680) \approx 330 \times 100$$

$$\text{or, } ? \times 440 \approx 33000$$

$$\therefore ? = \frac{33000}{440} = 75$$

S12. Ans.(e)

Sol.

$$? = 40\% \text{ of } 859 + 87.89 \div 7.99$$

$$\approx \frac{40 \times 860}{100} + 88 \div 8$$

$$\approx 344 + 11 = 355$$

S13. Ans.(b)

Sol.

$$? = 619.992 - 134.99 \div 14.998 - (9.01)^2$$

$$\approx 620 - 135 \div 15 - (9)^2$$

$$\approx 530$$

S14. Ans.(e)

Sol.

$$\begin{aligned} ? &= 449.97 \div 15.02 + 208.08 \div 8.01 - 16.01 \\ &\approx 450 \div 15 + 208 \div 8 - 16 \\ &= 30 + 26 - 16 \\ &= 30 + 10 \\ &= 40 \end{aligned}$$

S15. Ans.(d)

Sol.

$$\begin{aligned} 4^? \times \sqrt{226} &= 239.998 \div 8.001 + 929.99 \\ \text{or, } 4^? \times \sqrt{225} &\approx 240 \div 8 + 930 \\ \text{Or, } 4^? \times 15 &\approx 30 + 930 = 960 \\ \text{or, } 4^? &\approx \frac{960}{15} = 64 = 4^3 \\ \text{or, } 4^? &\approx 4^3 \\ \therefore ? &\approx 3 \end{aligned}$$