



Date : 14th Dec 2023

Quantitative Aptitude - DI (Caselet)

English

Directions 1 - 5 : A group of teenagers went camping. They were divided into three groups. The ratio of the number of boys and girls in Group 1 was 5 : 3, while that in group 2 and 3 was 8 : 11 and 2 : 3 respectively. The number of teenagers in Group 2 is 152. The number of girls in group 1 is 13 less than the number of girls in group 2. The number of teenage boys in group 3 is equal to the average of the number of teenagers in 1 and 2 combined.

Q:1 What percentage of the total teenagers who went camping are boys? (approx,)

1. 44
2. 46
3. 45
4. 47
5. 48

Q:2 What is the difference in the number of boys and girls in group 1 and 2 combined?

1. 24
2. 26
3. 20
4. 18
5. 28

Q:3 The number of teenagers in Group 3 is what per cent of the number of teenagers in Group 1?

1. 220%
2. 225%
3. 190%
4. 210%
5. 230%

Q:4 What is the ratio of number of girls in Group 2 to number of boys in Group 3?

1. 2 : 3
2. 4 : 5
3. 4 : 7
4. 3 : 5
5. 1 : 2

Q:5 What is the number of teenage girls in the camp?

1. 439
2. 433
3. 427

4. 416

5. None of these

Direction 6 - 10 : There are three classes i.e. V, VI, and VII in a school. In each of the given classes, male students and female students are there. The total number of students in class V is 1800. The number of Male students in Class VII is 1200. The number of Male students in Class VII and VI together is 2100. The number of male students in class VI is 20% more than the number of female students in class V. The ratio of the number of Male students to Female students in class VII is 8 : 7, respectively. The total number of female students in all classes together is 2400.

Q:6 The number of male students of class VI is what percentage of the number of male students of class VII?

1. 75%
2. 88%
3. 62.5%
4. 55.75%
5. 65.88%

Q:7 Find the difference between the number of female students in class VI and the number of males in class V.

1. 330
2. 325
3. 320
4. 450
5. 520

Q:8 Find the average number of male students in the school.

1. 1060
2. 1590
3. 1525
4. 1530
5. None of the above

Q:9 What is the ratio of the number of female students to the number of male students in class VI?

1. 1 : 3
2. 3 : 5
3. 2 : 3
4. 2 : 1



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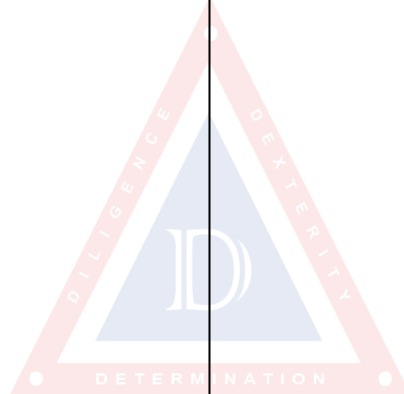
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English

5. 2 : 6

Q:10 Find the number of female students in class VII.

1. 950
2. 1050
3. 1550
4. 850
5. none of these



Answer Key

1. (2)	2. (2)	3. (1)	4. (5)	5. (3)
6. (1)	7. (4)	8. (5)	9. (3)	10. (2)

Answers and Solutions

Q:1 The correct answer is **Option 2** i.e **46**

Let number of teenagers in Group 1 = $5x + 3x = 8x$

Number of teenagers in Group 2 = $8y + 11y = 19y$

Number of teenagers in Group 3 = $2z + 3z = 5z$

The number of teenagers in Group 2 is 152

Boys and girls in group 2 = $8 \times 8 : 8 \times 11 = 64$ and 88.

Number of girls in group 1 = $88 - 13 = 75$

Number of boys in group 1 = $75 \times (5/3) = 125$

Total strength in group 1 and 2 = $152 + 75 + 125 = 352$

Number of boys in Group 3 = $352/2 = 176$

Number of girls in Group 3 = $176 \times (3/2) = 264$

Total number of girls = $264 + 88 + 75 = 427$

Total number of boys = $125 + 64 + 176 = 365$

Total number of teenagers going on camp = $365 + 427 = 792$

Required percentage = $(365/792) \times 100 = 46.08 \sim 46\%$

Q:2 The correct answer is **Option 2** i.e. **26**

Let number of teenagers in Group 1 = $5x + 3x = 8x$

Number of teenagers in Group 2 = $8y + 11y = 19y$

Number of teenagers in Group 3 = $2z + 3z = 5z$

The number of teenagers in Group 2 is 152

Boys and girls in group 2 = $8 \times 8 : 8 \times 11 = 64$ and 88.

Number of girls in group 1 = $88 - 13 = 75$

Number of boys in group 1 = $75 \times (5/3) = 125$

Number of boys in group 1 and 2 = $125 + 64 = 189$

Number of girls in group 1 and 2 = $75 + 88 = 163$

Difference = $189 - 163 = 26$

Q:3 The correct answer is **Option 1** i.e **220%**

Let number of teenagers in Group 1 = $5x + 3x = 8x$

Number of teenagers in Group 2 = $8y + 11y = 19y$

Number of teenagers in Group 3 = $2z + 3z = 5z$

The number of teenagers in Group 2 is 152

Boys and girls in group 2 = $8 \times 8 : 8 \times 11 = 64$ and

88.

Number of girls in group 1 = $88 - 13 = 75$

Number of boys in group 1 = $75 \times (5/3) = 125$

Total strength in group 1 and 2 = $152 + 75 + 125 = 352$

Number of boys in Group 3 = $352/2 = 176$

Number of girls in Group 3 = $176 \times (3/2) = 264$

Total strength of Group 1 = $125 + 75 = 200$

Total strength of Group 3 = $176 + 264 = 440$

Required percentage = $(440/200) \times 100 = 220\%$

Q:4 The correct answer is **Option 5** i.e. **1 : 2**

Let number of teenagers in Group 1 = $5x + 3x = 8x$

Number of teenagers in Group 2 = $8y + 11y = 19y$

Number of teenagers in Group 3 = $2z + 3z = 5z$

The number of teenagers in Group 2 is 152

Boys and girls in group 2 = $8 \times 8 : 8 \times 11 = 64$ and 88.

Number of girls in group 1 = $88 - 13 = 75$

Number of boys in group 1 = $75 \times (5/3) = 125$

Total strength in group 1 and 2 = $152 + 75 + 125 = 352$

Number of boys in Group 3 = $352/2 = 176$

Number of girls in Group 3 = $176 \times (3/2) = 264$

Ratio = $88 : 176 = 1 : 2$

Q:5 The correct answer is **Option 3** i.e. **427**

Let number of teenagers in Group 1 = $5x + 3x = 8x$

Number of teenagers in Group 2 = $8y + 11y = 19y$

Number of teenagers in Group 3 = $2z + 3z = 5z$

The number of teenagers in Group 2 is 152

Boys and girls in group 2 = $8 \times 8 : 8 \times 11 = 64$ and 88.

Number of girls in group 1 = $88 - 13 = 75$

Number of boys in group 1 = $75 \times (5/3) = 125$

Total strength in group 1 and 2 = $152 + 75 + 125 = 352$

Number of boys in Group 3 = $352/2 = 176$

Number of girls in Group 3 = $176 \times (3/2) = 264$

Total number of girls = $264 + 88 + 75 = 427$

Q:6 The correct answer is **Option 1** i.e. **75%**.

Male students in class VI = 120% of Female students in Class V

$\Rightarrow 900 = 120/100 \times \text{Female student in Class V}$

Female students in Class V = $900 \times 100/120 = 750$

The ratio of the number of Male students to Female students in class VII is 8 : 7, respectively
Female student in class VII = $1200/8 \times 7 = 1050$

Class	Male students	Female students	Total
V	1050	750	1800
VI	900	600	1500
VII	1200	1050	2250

Required percentage = $(900/1200) \times 100 = 75\%$

Q:7 The correct answer is **Option 4** i.e. **450**.

Male students in class VI = 120% of Female students in Class V

$\Rightarrow 900 = 120/100 \times \text{Female student in Class V}$

Female students in Class V = $900 \times 100/120 = 750$

The ratio of the number of Male students to Female students in class VII is 8 : 7, respectively

Female student in class VII = $1200/8 \times 7 = 1050$

Class	Male students	Female students	Total
V	1050	750	1800
VI	900	600	1500
VII	1200	1050	2250

Required difference = $(1050 - 600) = 450$

Q:8 The correct answer is **Option 5** i.e. **none of the above**.

Male students in class VI = 120% of Female students in Class V

$\Rightarrow 900 = 120/100 \times \text{Female student in Class V}$

Female students in Class V = $900 \times 100/120 = 750$

The ratio of the number of Male students to Female students in class VII is 8 : 7, respectively

Female student in class VII = $1200/8 \times 7 = 1050$

Class	Male students	Female students	Total
V	1050	750	1800
VI	900	600	1500
VII	1200	1050	2250

Average no of male students = $(1050 + 900 + 1200)/3 = 1050$

Q:9 The correct answer is **Option 3** i.e. **2 : 3**.

Male students in class VI = 120% of Female students in Class V

$\Rightarrow 900 = 120/100 \times \text{Female student in Class V}$

Female students in Class V = $900 \times 100/120 = 750$

The ratio of the number of Male students to Female students in class VII is 8 : 7, respectively

Female student in class VII = $1200/8 \times 7 = 1050$

Class	Male students	Female students	Total
V	1050	750	1800
VI	900	600	1500
VII	1200	1050	2250

Required ratio = $600/900 = 2 : 3$

Q:10 The correct answer is **Option 2** i.e. **1050**.

Male students in class VI = 120% of Female students in Class V

$900 = 120/100 \times \text{Female student in Class V}$

Female students in Class V = $900 \times 100/120 = 750$

The ratio of the number of Male students to Female students in class VII is 8 : 7, respectively

Female student in class VII = $1200/8 \times 7 = 1050$