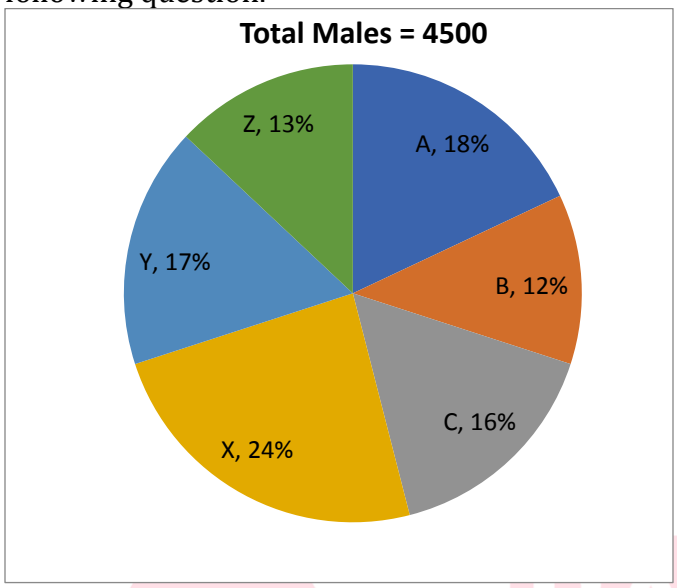
Quiz Date: 11th June 2020

Directions (1-5): Pie chart given below shows total number of males in 6 different cities. Ratio between male to female is 3: 5 in every city. Study the chart carefully & answer the following question.



Q1. Total number of males in city A, B and C together is how much less than total number of females in city X, Y and Z together?
(a) 1920
(b) 1950
(c) 1980
(d) 2020
(e) 2080

Q2. Find the total population of city X if total number of transgenders in city X is 25% more than total number of females of city C?
(a) 3780
(b) 2880
(c) 3980
(d) 4280
(e) 4380

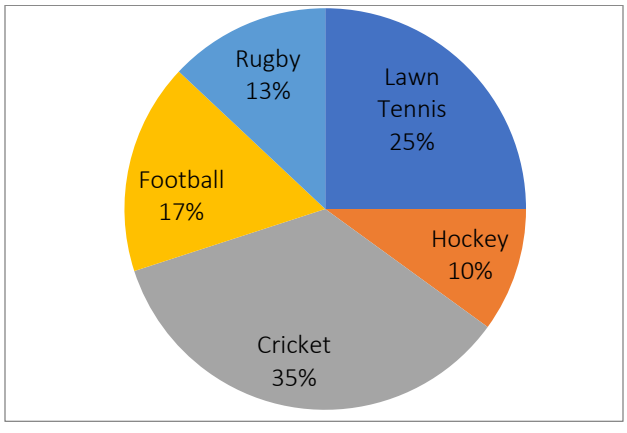
Q3. Total number of males in city B and Z together is what percent less than total number of females in city C and X together?
(a) 62.5%
(b) 37.5%
(c) 60%
(d) 67.5%
(e) 75%

Q4. 40% of total females of city 'A' plays cricket. Out of remining females of city 'A', 40% play hockey. Remaining females of city 'A' plays football. Find total number of females of city 'A' who doesn't play hockey?
(a) 864
(b) 1026
(c) 810
(d) 1350
(e) 1260

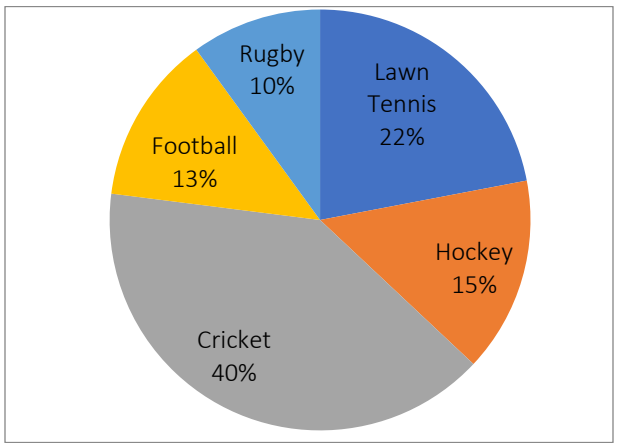
Q5. Find the ratio between number of males in city B, Y and Z together to number of females in city B and C together?
(a) 7 : 8
(b) 6 : 7
(c) 4 : 5
(d) 9 : 10
(e) 14 : 15

Directions (6-10): **Study the following pie-chart carefully to answer these questions:**
Percentage-wise distribution of players who Play Five Different Sports
Total players are 4200, out of which Female Players are 2000.

Total Players = 4200



Female Players = 2000



Q6. What is the average number of players (both male and female) who play Football and Rugby together?
(a) 620
(b) 357
(c) 230
(d) 630
(e) 520

Q7. What is the difference between the number of female players who play Lawn Tennis and the number of male players who play Rugby?
(a) 94
(b) 84
(c) 220
(d) 240
(e) 194

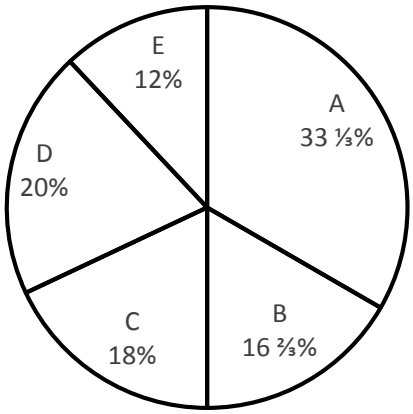
Q8. What is the ratio of the number of female players who play Cricket to the number of male players who play Hockey?
(a) 20 : 7
(b) 4 : 21
(c) 20 : 3
(d) 3 : 20
(e) 7 : 20

Q9. What is the total number of the male players who play Football, Cricket and Lawn tennis together?
(a) 1,724
(b) 1,734
(c) 1,824
(d) 1,964
(e) 2,164

Q10. The number of male players who play Rugby is approximately what percentage of the total number of players who play Lawn Tennis?
(a) 33
(b) 39
(c) 26
(d) 21
(e) 43

Directions (11-15): Study the following pie graph and answer the related questions. The pie chart shows the percentage distribution of number of tablets distributed to 12th standard students of five different colleges.

Total tablets distributed = 36000



Note: Each student gets only one tablet.

Q11. What is the total number of tablets distributed to students of college A and C together?
(a) 16,480
(b) 18,840
(c) 18,480
(d) 16,420
(e) 16,840

Q12. Total number of tablets distributed to students of college D is what percent more or less than that to students of college B?
(a) 20% less
(b) 20% more
(c) 15% more
(d) 10% less
(e) 15% less

Q13. What is the average number of tablets distributed to students of colleges C, D and A together?
(a) 8,760
(b) 8,650
(c) 8,560
(d) 6,650
(e) 8,450

Q14. What is the ratio of total number of tablets distributed to the students of college B and E together to that of colleges A and D together?
(a) 43 : 80
(b) 48 : 79
(c) 80 : 43
(d) 80 : 63
(e) 7 : 9

Q15. If ratio of boys to girls in college D who got tablets is 3 : 2, then find number of girls who got tablets in college D is what percent of number of total tablets distributed to the students of college E?
(a) $66\frac{1}{3}\%$
(b) $66\frac{2}{3}\%$
(c) $33\frac{1}{3}\%$
(d) $16\frac{2}{3}\%$
(e) $56\frac{2}{3}\%$

Solutions

S1. Ans.(c)
Sol.

Total number of males in city A, B and C together

$= \frac{18+12+16}{100} \times 4500 = 2070$

Total number of females in city X, Y and Z together

$= \frac{13+17+24}{100} \times 4500 \times \frac{5}{3} = 4050$

Required difference = $4050 - 2070 = 1980$

S2. Ans.(e)

Sol.

Total population of City X

= Males + Females + Transgender

Males and females in city X

$= \frac{24}{100} \times 4500 + \frac{24}{100} \times 4500 \times \frac{5}{3} = \frac{24}{100} \times 4500 \times \frac{8}{3} = 2880$

Transgenders in city X

$= \frac{125}{100} \times \frac{16}{100} \times 4500 \times \frac{5}{3} = 1500$

Total population of city X

$= 2880 + 1500 = 4380$

S3. Ans.(a)

Sol.

Total number of males in city B and Z together

$= \frac{12+13}{100} \times 4500 = 1125$

Total number of females in city C and X together

$= \frac{16+24}{100} \times 4500 \times \frac{5}{3} = 3000$

Required percentage $= \frac{3000-1125}{3000} \times 100$

$= \frac{1875}{3000} \times 100 = 62.5\%$

S4. Ans.(b)

Sol.

Total number of females in City 'A'

$= \frac{18}{100} \times 4500 \times \frac{5}{3} = 1350$

Females who play cricket = $1350 \times \frac{40}{100} = 540$

Females who play hockey = $1350 \times \frac{60}{100} \times \frac{40}{100} = 324$

Females who play football= $1350 \times \frac{60}{100} \times \frac{60}{100} = 486$

Total number of females in city 'A' who doesn't play hockey = $540 + 486 = 1026$

S5. Ans.(d)

Sol.

Males in city B, Y and Z together

$= 4500 \times \frac{12+17+13}{100} = 45 \times 42 = 1890$

Females in city B and C together

$= 4500 \times \frac{5}{3} \times \frac{12+16}{100} = 2100$

Required Ratio $= \frac{1890}{2100} = \frac{9}{10}$

S6. Ans.(d)

Sol.

Required average $= \frac{1}{2} \times \frac{(17+13)}{100} \times 4200$

$= 630$

S7. Ans.(a)

Sol.

Required difference

$= 22\%$ of $2000 - (13\%$ of $4200 - 10\%$ of $2000)$

$= 440 - [546 - 200]$

$= 94$

S8. Ans.(c)

Sol.

Required ratio

$= \frac{40\% \text{ of } 2000}{(10\% \text{ of } 4200 - 15\% \text{ of } 2000)}$

$= \frac{800}{120} = \frac{20}{3}$

S9. Ans.(b)

Sol.

Required total no. of male players

= (17% of 4200 – 13% of 2000) + (35% of 4200 – 40% of 2000) + (25% of 4200 – 22% of 2000)

= 454 + 670 + 610

= 1734

S10. Ans.(a)
Sol.

$$\text{Required percentage} \frac{(13\% \text{ of } 4200 - 10\% \text{ of } 2000)}{25\% \text{ of } 4200} \times 100$$

$$= \frac{34600}{1050} = 32.95\%$$

$$\simeq 33\%$$

S11. Ans.(c)
Sol.

$$\text{Required answer} = \frac{100}{300} \times 36000 + \frac{18}{100} \times 36000$$

= 18,480

S12. Ans.(b)
Sol.

$$\because 20\% = \frac{1}{5} \text{ and } \frac{50}{3}\% = \frac{1}{6}$$

$$\therefore \text{Required percentage}$$

$$= \frac{\frac{1}{5} - \frac{1}{6}}{\frac{1}{6}} \times 100 = 20\% \text{ more}$$

S13. Ans.(c)
Sol.

$$\text{Required average number of tablets}$$

$$= \frac{1}{3} \times \left(18 + 20 + \frac{100}{3}\right) \times 360$$

= 8,560

S14. Ans.(a)
Sol.

$$\text{Required ratio} = \frac{\left(\frac{50}{3} + 12\right)}{\left(\frac{100}{3} + 20\right)} = \frac{43}{80}$$

S15. Ans.(b)
Sol.

Number of girls who got tablet in college D

$= \frac{2}{5} \times \frac{20}{100} \times 36000$

$= 2,880$

No. of tablets distributed to the students of college E

$= \frac{12}{100} \times 36000$

$= 4,320$

$\therefore$ Required percentage $= \frac{2880}{4320} \times 100 = 66\frac{2}{3}\%$