

# What is the total number of books sold?



**N. Vinaykumar Reddy**

Director, IACE,  
Hyderabad.

## MODEL QUESTIONS

**Directions (Q. No. 1-5) :** Study the information carefully to answer the following questions.

In a School sports competition, the total number of 400 students participated in eight different sports. 15% of the total students took part in cricket,  $\frac{1}{5}$  of the total students participated in Football.  $\frac{1}{10}$  of the total students took part Badminton, 12% of total students participated in Basketball, 18% of total students took part in Athletics, 11% of total students took part in Hockey and remaining students took part in Tennis and Baseball respectively in the ratio 5:9. No female student plays cricket. The ratio of male and female students in football is 7:3. The no. of female students of badminton is 12. The ratio of male and female students in Basketball, Athletics, Hockey, Tennis and Baseball is 5:7, 4:5, 7:4, 3:2 and 1:1 respectively.

1. The no. of male students who

play hockey, baseball and athletics is what percent more than the female students who play football tennis and basketball?

- (a) 35% (b) 32%  
(c) 28% (d) 30%  
(e) None of these

2. Find the ratio between the total no. of male students to the total no. of female students?

- (a) 127 : 73  
(b) 73 : 127 (c) 173 : 77  
(d) 27 : 173  
(e) None of these

3. The total no. of male students is what percent of total students?

- (a) 38% (b) 34%  
(c) 35% (d) 37%  
(e) None of these

4. Find the difference of the male students who play cricket to the female students who play hockey?

- (a) 50 (b) 60  
(c) 16 (d) 44  
(e) None of these

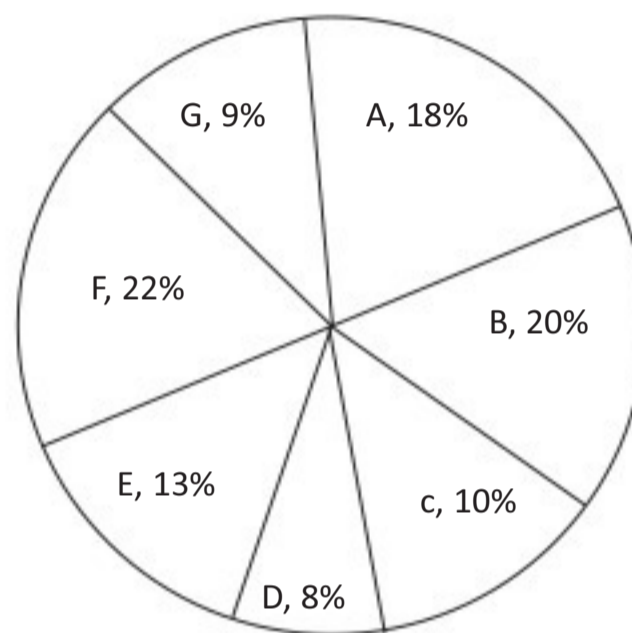
5. The no. of male students who play football is what percent of the female students who play Basketball?

- (a) 75% (b) 50.33%  
(c) 200% (d) 150.67%  
(e) None of these

**Directions (Q.No.6-10):** Given below is the pie chart which shows



the percentage distribution of books of publisher 'X' sold by 7 different book store in year 2016. Table shows the ratio of books sold of publisher X to publisher Y in these seven book stores.



Some values are missing in the table. You have to calculate these values if required to answer the questions.

Total books sold of Publisher

X = 25,700

Book store	Ratio of books sold of publisher X to publisher Y
A	3 : —
B	— : 5
C	2 : 3
D	— : —
E	13 : 5
F	11 : —
G	3 : 4

6. What is the total number of books sold by store A and B together if books sold by store A for publisher Y is  $33\frac{1}{3}\%$  more than that of publisher X and Books sold by store B for publisher X is 20% less than that of publisher Y.

- (a) 22359 (b) 21257  
(c) 20256 (d) 23244  
(e) 22556

7. What is the total number of books sold by store D if books sold of publisher Y in store D is 25% more than that of books sold by store D of publisher X

- (a) 2520 (b) 4020  
(c) 4626 (d) 4422  
(e) 4528

8. Books sold by store E, F and G together of publisher X is what percent more or less than books sold by these store of publisher Y if books sold by store F of publisher Y is  $100/11\%$  more than that of books sold by F of

publisher X.

- (a)  $\frac{400}{31}\%$  (b)  $\frac{300}{41}\%$   
(c)  $\frac{200}{9}\%$  (d)  $\frac{100}{9}\%$   
(e)  $\frac{100}{11}\%$

9. If in year 2017 total books sold by store E is increased by  $33\frac{1}{3}\%$  over previous year and ratio of books sold of publisher X and Y by store E in 2017 is 11 : 13 then books sold by store E of publisher X in 2016 is what percent more or less than that of books sold of publisher X by store E in 2017.

- (a)  $\frac{200}{11}\%$   
(b)  $\frac{200}{9}\%$  (c)  $\frac{100}{11}\%$   
(d)  $\frac{100}{9}\%$

10. Average of books of publisher X sold by store B and C together is what percent more or less than that of average of books of publisher Y sold by store E and G together

- (a)  $\frac{1100}{12}\%$  (b)  $\frac{1100}{17}\%$   
(c)  $\frac{1300}{17}\%$  (d)  $\frac{1400}{7}\%$   
(e)  $\frac{1700}{11}\%$

## Solutions

1. Total number of students = 400  
 $\Rightarrow$  Number of students play Cricket = 15% of 400 = 60  
 $\Rightarrow$  Number of students play Football =  $\frac{1}{5}$  of 400 = 80  
 Number of students play Badminton =  $\frac{1}{10}$  of 400 = 40  
 Number of students play Basketball = 12% of 400 = 48  
 Number of students play Athletics = 18% of 400 = 72  
 Number of students play Hockey = 11% of 400 = 44  
 Number of remaining students = 400 - (60 + 80 + 40 + 48 + 72 + 44) = 400 - 344 = 56  
 Number of students play Tennis =  $\frac{5}{14} \times 56 = 20$   
 Number of students play Baseball =  $\frac{9}{14} \times 56 = 36$

Name of sports	Number of players played	Male	Female
cricket	60	60	0
Football	80	56	24
Badminton	40	28	12
Basketball	48	20	28
Athletics	72	32	40
Hockey	44	28	16
Tennis	20	12	8
Basketball	36	18	18

The no. of male students who play hockey, baseball and athletics = 28 + 18 + 32 = 78

The female students who play football, tennis and basketball = 24 + 8 + 28 = 60

$\therefore$  Required percentage =  $\frac{(78-60)}{60} \times 100 = \frac{18}{60} \times 100 = 30\%$

Ans:d

2. Total no. of female students = 24 + 12 + 28 + 40 + 16 + 8 + 18 = 146

Total no. of male students = 400 - 146 = 254

$\therefore$  Required ratio = 254 : 146 = 127 : 73

Ans:a

3. Total no. of males students = 400 - 146 = 254

$\therefore$  Required percentage =  $\frac{254}{(Total\ male\ students)} \times 100$   
 $= \frac{254}{400} \times 100 = 63.5\%$

Ans:e

4.  $\therefore$  Required difference = 60 - 16 = 44

Ans:d

5.  $\therefore$  Required percentage

$$= \frac{56}{28} \times 100 = 200\%$$

Ans:c

6. Total books sold by store A =  $18 \times 257 + \frac{18}{3}\% \times 4 \times 25700$   
 $= 18 \times 257 + 24 \times 257$   
 $= 257 \times 42$

Total books sold by store B =  $20 \times 257 + \frac{20}{4} \times \frac{257}{5}$   
 $= 257 \times 45$

Total books sold by both store = 257 (45+42) = 257  $\times$  87 = 22,359

Ans:a

7. Total books sold by store D =  $8 \times 257 + 8 \times 257 \times \frac{5}{4}$   
 $= 257 (8 + 10)$   
 $= 257 \times 18$   
 $= 4626$

Ans:c

8. Total books of publisher X sold by store E, F and G together =  $44 \times 257$

Total books of publisher Y sold by store E, F and G together =  $25700 \left( \frac{13\%}{13} \times 5 + 22\% \times \frac{12}{11} + 9\% \times \frac{4}{3} \right)$   
 $= 25700 (5\% + 24\% + 12\%)$   
 $= 25700 (41\%)$

Required percentage =  $\frac{257(44-41)}{257 \times 41} \times \frac{3}{41} \times 100 = \frac{300}{41}\%$

Ans:b

9. Total books sold by store E in 2017 = 257  $\times$  24

Required percentage =  $\frac{257 \times 13 - 257 \times 24}{257 \times 24} \times \frac{11}{24} \times 100$   
 $= \frac{200}{11}\%$

Ans:a

10. Average of books of publisher X sold by store B and C = 15  $\times$  257

Average of books of publisher Y sold by store E and G = 8.5  $\times$  257

Required percentage =  $\frac{15 \times 257 - 8.5 \times 257}{8.5 \times 257} \times 100$   
 $= \frac{1300}{17}\%$

Ans:c



**RRB GROUP-D & NTPC**

**10+10 Tests With Explanations**

- Subscribe one time & Practice any number of times
- Graphical Performance Reports

[www.sakshieducation.com](http://www.sakshieducation.com)