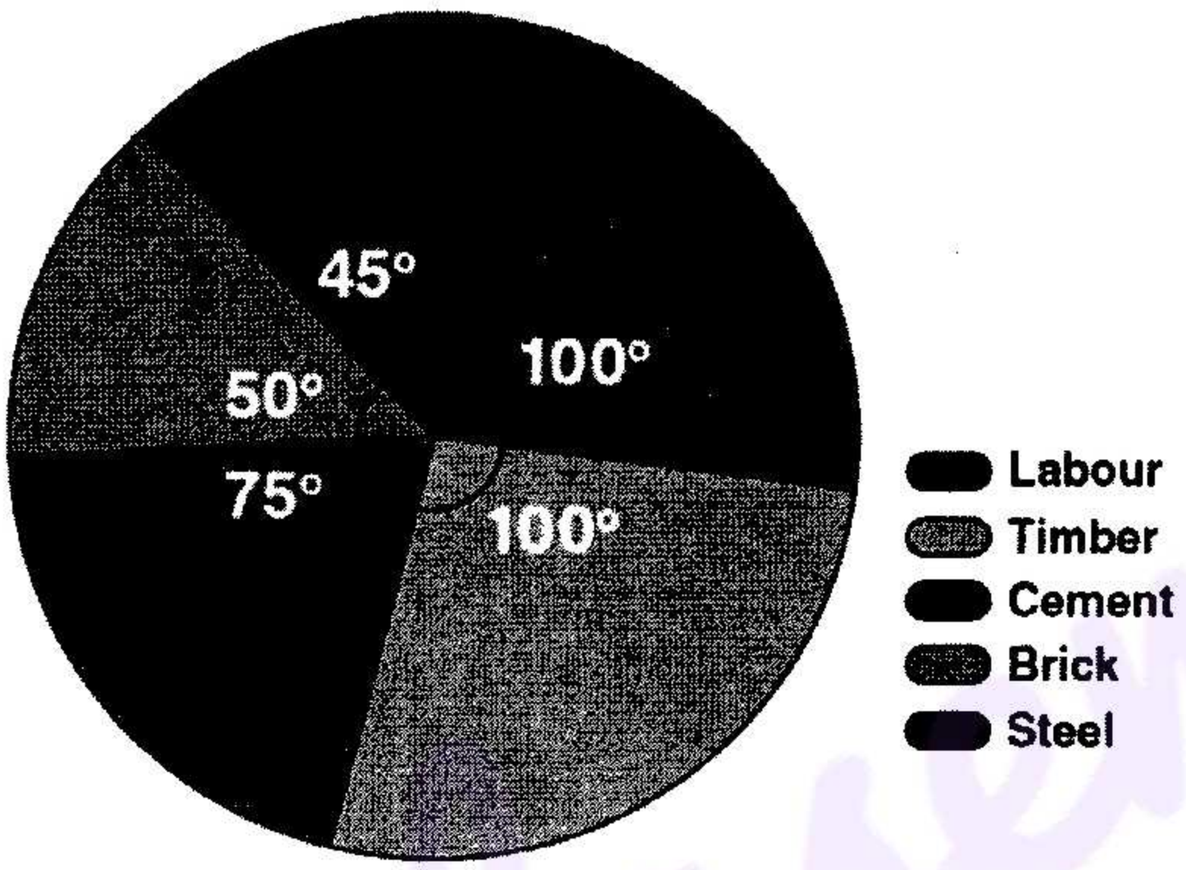
Exercise 25.2

Q.1

EXERCISE 25.2 PAGE NO: 25.21

1. The pie chart given in Fig. 25.17 represents the expenditure on different items in constructing a flat in Delhi. If the expenditure incurred on cement is Rs. 112500, find the following:



(I) Total Cost of the flat.

(II) Expenditure incurred on labour

Solution: ∵ Expenditure on cement = $\frac{\text{Central angle}}{360^\circ} \times$ T. Cost

Total cost of flat = $\frac{360^\circ \times 112500}{75^\circ}$

= 540000

(II) Expenditure incurred on labour = $\frac{100}{360^\circ} \times 540000$

= Rs 1,50,000.

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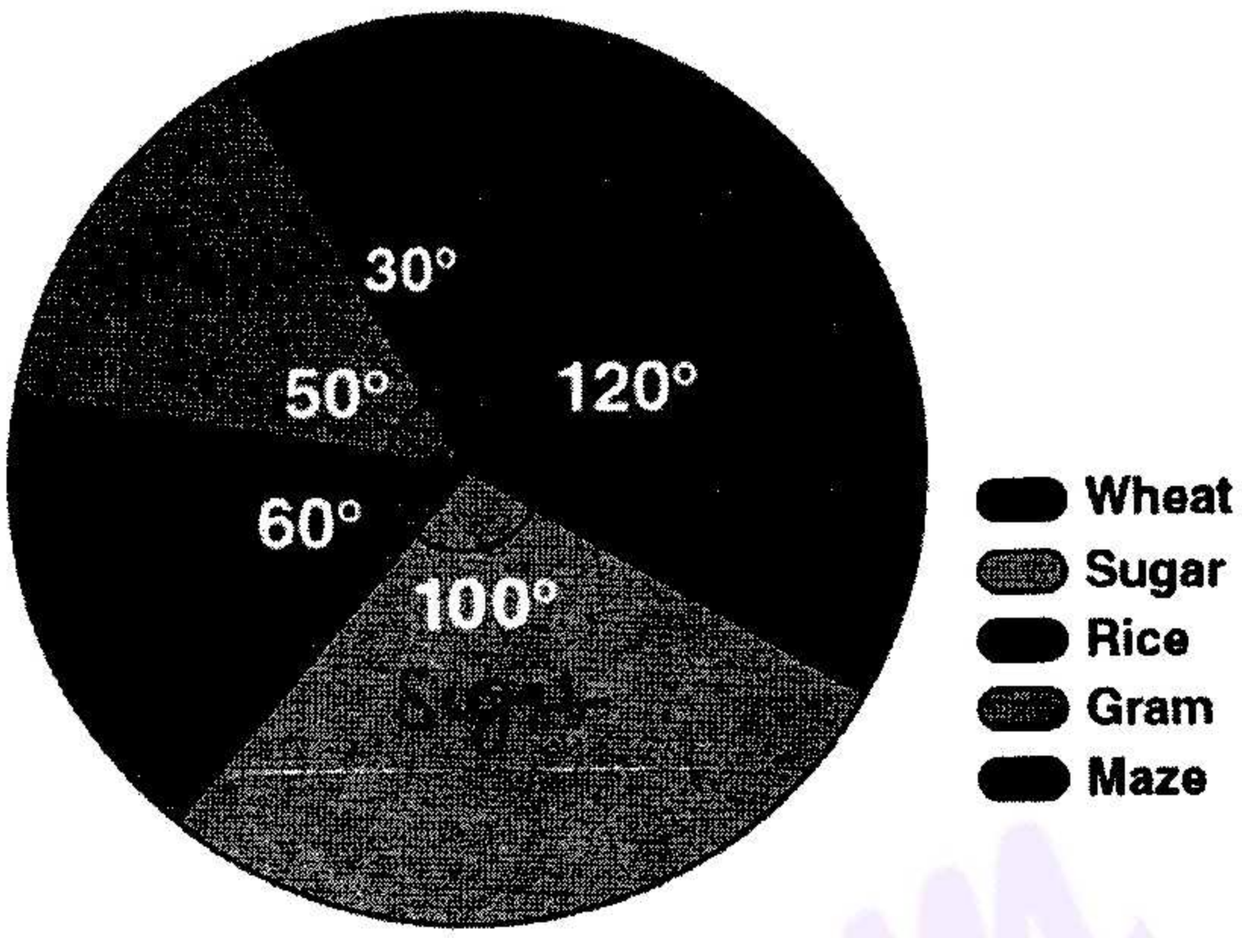
Q.

2. The pie-chart given in Fig. 25.18 shows the annual agricultural production of an Indian state. If the total production of all the commodities is 81000 tonnes, find the production (in tonnes) of



(i) Wheat (ii) Sugar (iii) Rice (iv) Maize

(v) Grams.

Sol: Given, Total production = 81000 tonnes.

(i) Production of wheat = $\frac{120^\circ}{360^\circ} \times 81000 = 27000$ tonnes

(ii) Production of Sugar = $\frac{100}{360} \times 81000 = 22500$ tonnes

(iii) Production of Rice = $\frac{60}{360} \times 81000 = 13500$ tonnes.

(iv) Production of maze = $\frac{30}{360} \times 81000 = 6750$ tonnes.

(v) Production of Gram = $\frac{50}{360} \times 81000 = 11250$ tonnes

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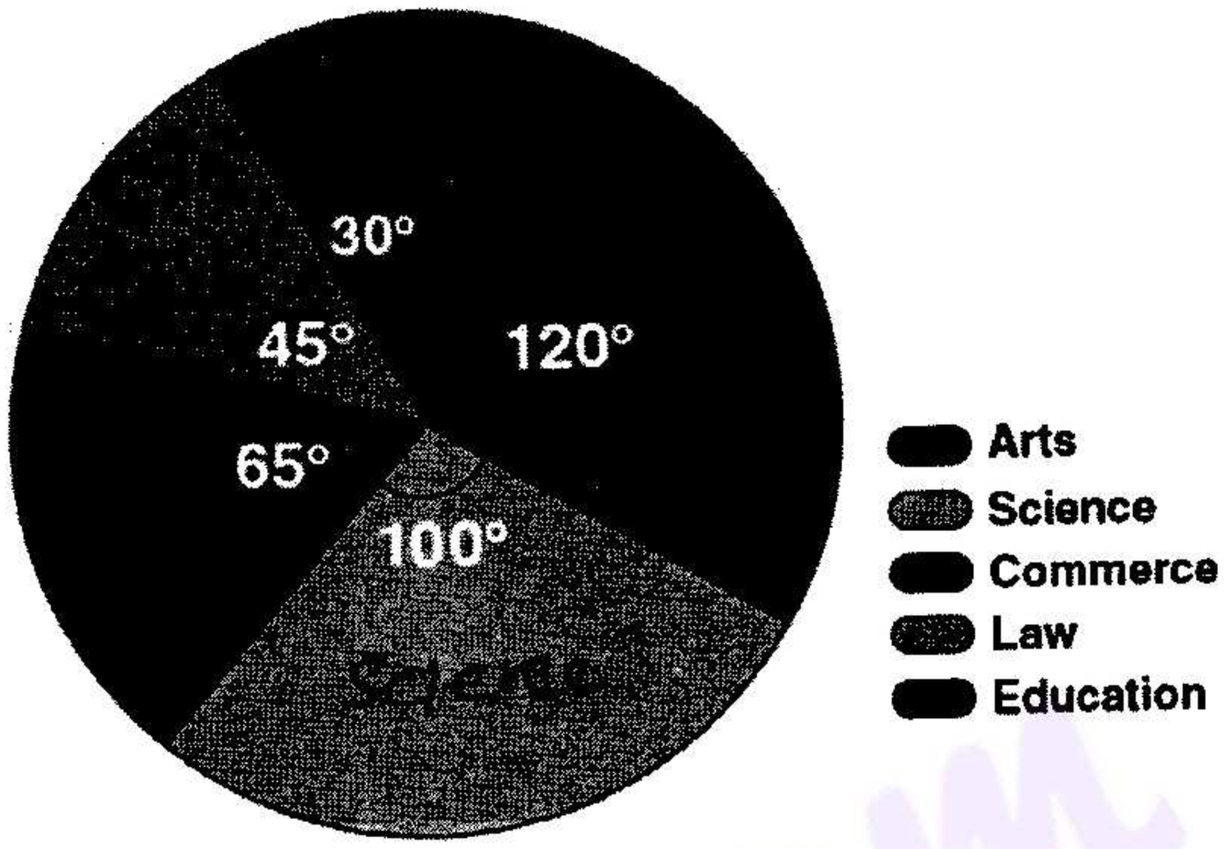
Q3 The following pie-chart shows the number of students admitted in different faculties of a College. If 1000 students are admitted in Science, answer the following.



(i) What is the total no. of students.

(ii) What is the ratio of students in Science and arts.

Sol: (i) Students in Science $= \frac{\text{central angle of Science}}{360^\circ} \times \text{Total}$

$\Rightarrow \quad 1000 = \frac{100}{360^\circ} \times \text{Total Students}$

$\Rightarrow \quad \text{Total students} = \frac{1000 \times 360}{100}$

$= 3600$

(ii) $\text{students in arts} = \frac{120}{360} \times 3600 = 1200$

Ratio : $1000 : 1200$

$= 10 : 12$

$= 5 : 6$

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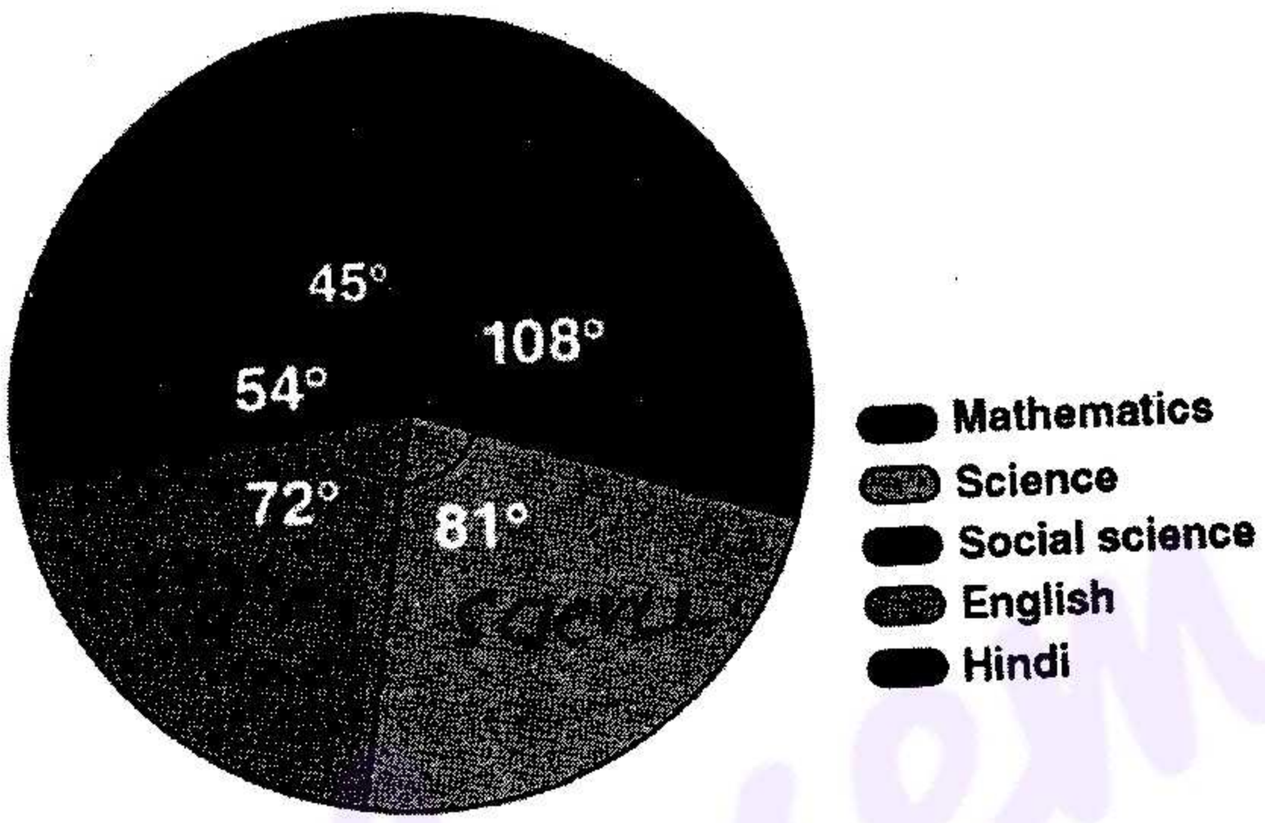
Q.4 In fig. 25.20, the pie-chart shows the marks obtained by a students in an examination. If the student secure 440 marks in all, Calculate his marks in each of the given subjects.



Solution: Marks obtained in all = 440 marks.

Marks in Science = $\frac{81}{360} \times 440 = 99$ Marks.

Marks in Maths = $\frac{108}{360} \times 440 = 132$ Marks.

Marks in english = $\frac{72}{360} \times 440 = 88$ Marks

Marks in Hindi = $\frac{54}{360} \times 440 = 66$ Marks.

Marks in social science = $\frac{45}{360} \times 440 = 55$ Marks.

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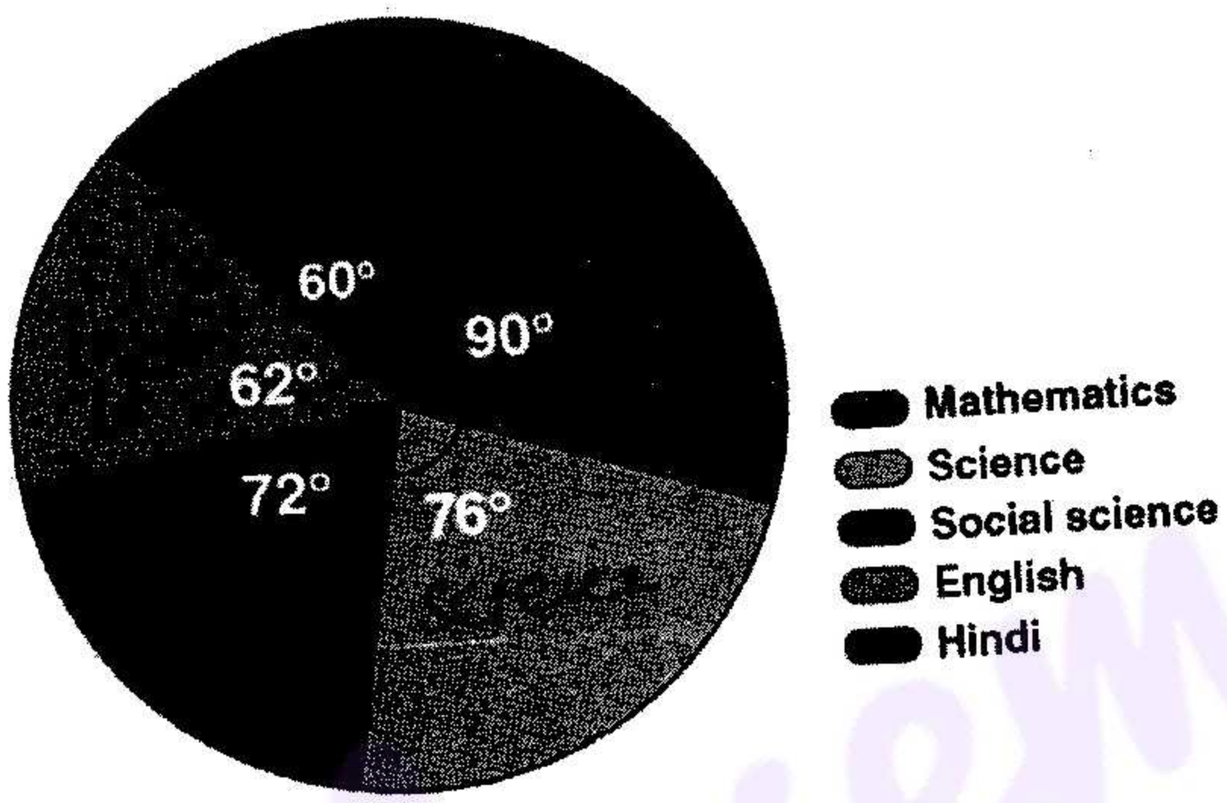
Q5 In fig. 25-21, the pie-chart shows the marks obtained by a student in various subjects. If the student scored 135 marks in mathematics, find the total marks in all the subjects. Also find his score in individual subjects.

Sol



Solution:

$$\text{Marks in Maths} = \frac{\text{central angle}}{360^\circ} \times \text{Total marks}$$

$$\Rightarrow \quad 135 = \frac{90}{360} \times \text{Total Marks}$$

$$\Rightarrow \quad \text{Total Marks} = 135 \times 4 = 540 \text{ Marks.}$$

$$\text{Marks in Hindi} = \frac{60}{360} \times 540 = 90 \text{ Marks}$$

$$\text{Marks in Science} = \frac{76}{360} \times 540 = 114 \text{ Marks.}$$

$$\text{Marks in SST} = \frac{72}{360} \times 540 = 108 \text{ Marks}$$

$$\text{Marks in English} = \frac{62}{360} \times 540 = 93 \text{ Marks.}$$

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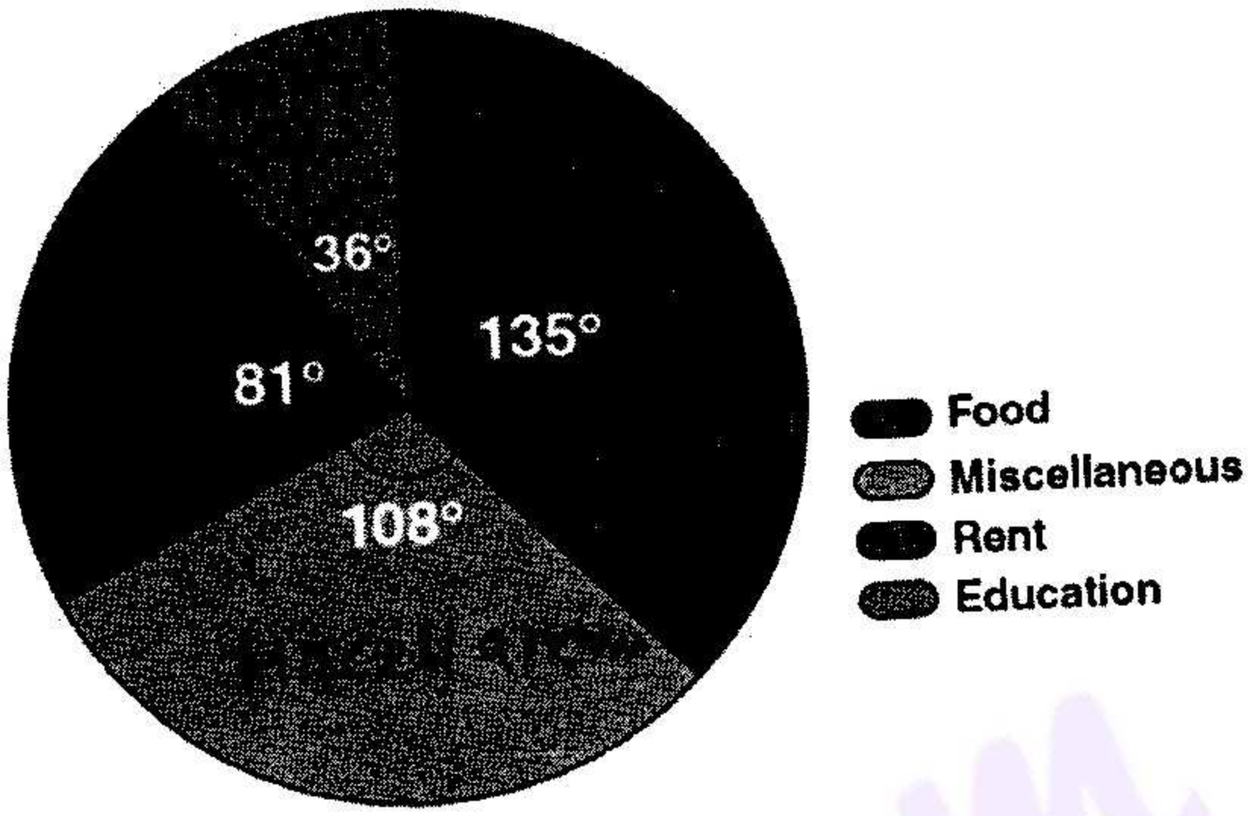
Q.6 The following pie-chart shows the monthly expenditure of Shikha on various items. If she spends Rs 16000 per month. answer the following questions.



(i) How much does she spend on rent ?

(ii) How much does she spend on education ?

(iii) What is the ratio of expenses on food and rent ?

Solution : Monthly expenditure = Rs 16000

(i) Spent on Rent $= \frac{81}{360} \times 16000 = Rs\ 3600$

(ii) Spent on education $= \frac{36}{360} \times 16000 = Rs\ 1600$

(iii) Spent on food $= \frac{135}{360} \times 16000 = Rs\ 6000.$

∴ Ratio of expenses on food and rent

$= 6000 : 3600 = 5 : 3$

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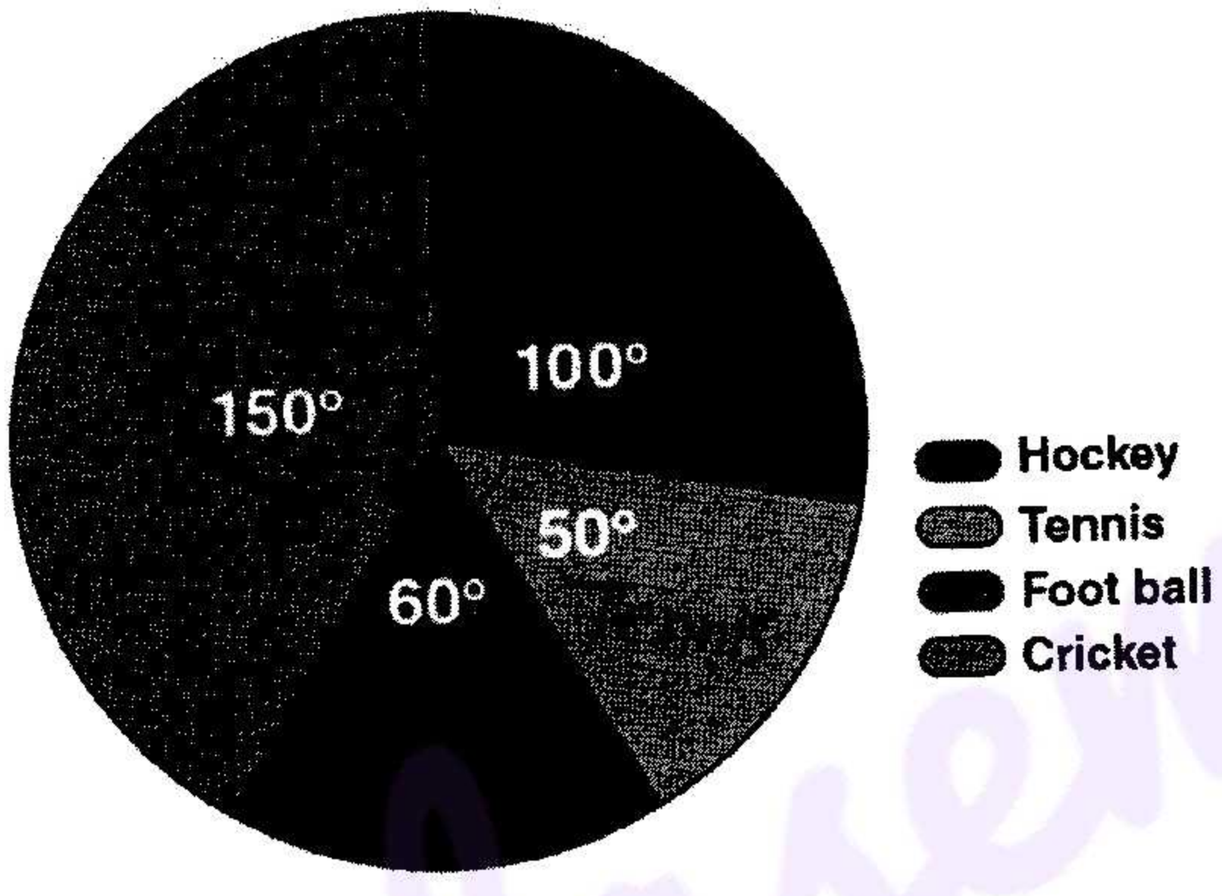
Q7 The Pie-chart (as shown in the figure 25-23) represents the amount spent on different sports by a sports club in a year. If the total money spent by the club on sports is Rs 1,08,000, find the amount spent on each sport.



Sol: Money spent on sports = 1,08,000

(i) Cricket $1,08,000 * \frac{150}{360}$ = Rs 45000

(ii) Amount spent on foot ball = $\frac{60}{360} \times 108000$

= Rs 18000

(iii) Amount spent on Tennis = $\frac{50}{360} \times 1,08,000$ = Rs 15000

(iv) Amount spent on Hockey = $\frac{100}{360} \times 108000$ = Rs 30000.

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