

PIE CHARTS - PRACTICE QUESTIONS



metatutor

1.

20 people were asked whether they were left or right handed.

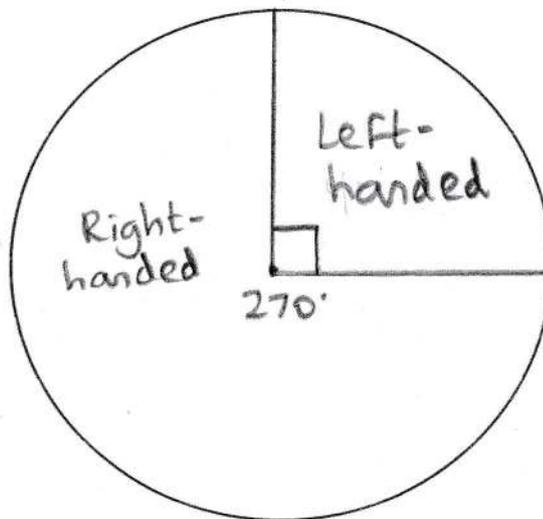
15 people answered right-handed and the other 5 answered left-handed.

In the space below, construct an accurate pie chart to represent the results.

$$\frac{360}{20} = 18$$

$$LH = 5 \times 18 = 90^\circ$$

$$RH = 15 \times 18 = 270^\circ$$



2.

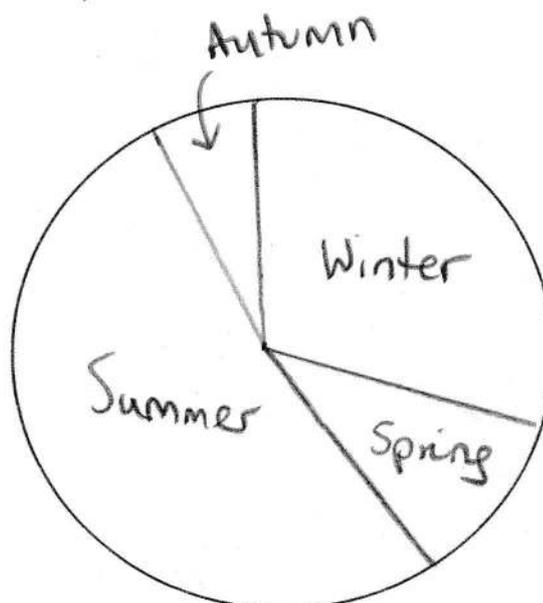
30 people were asked what their favourite season was.

The results are shown in the table.

Season	Winter	Spring	Summer	Autumn
Frequency	9	3	16	2

In the space below, construct an accurate pie chart to represent the results.

$$360 \div 30 = 12$$



$$\begin{aligned} \text{Winter} &= 9 \times 12 = 108^\circ \\ \text{Spring} &= 3 \times 12 = 36^\circ \\ \text{Summer} &= 16 \times 12 = 192^\circ \\ \text{Autumn} &= 2 \times 12 = 24^\circ \end{aligned}$$

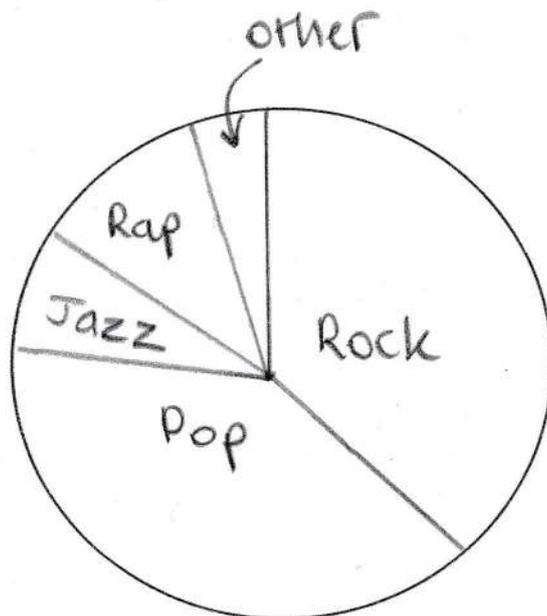
3.

90 people were asked what their favourite genre of music was. The results are shown in the table.

Genre	Rock	Pop	Jazz	Rap	Other
Frequency	33	36	7	10	4

In the space below, construct an accurate pie chart to represent the results.

$$360 \div 90 = 4$$



$$\begin{aligned} \text{Rock} &= 33 \times 4 = 132^\circ \\ \text{Pop} &= 36 \times 4 = 144^\circ \\ \text{Jazz} &= 7 \times 4 = 28^\circ \\ \text{Rap} &= 10 \times 4 = 40^\circ \\ \text{Other} &= 4 \times 4 = 16^\circ \end{aligned}$$

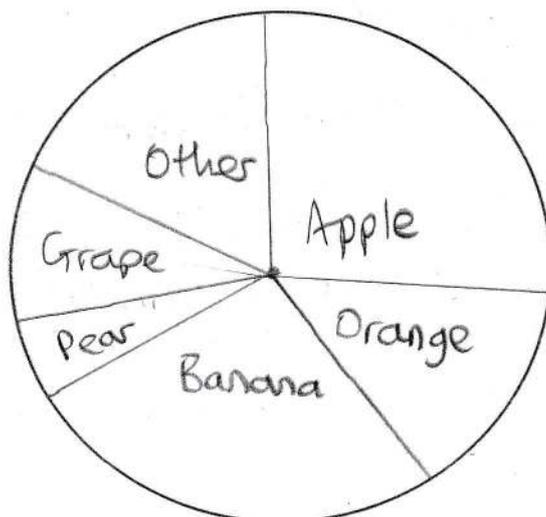
4.

720 people were asked what their favourite fruit was. The results are shown in the table.

Fruit	Apple	Orange	Banana	Pear	Grape	Other
Frequency	190	96	196	38	72	128

In the space below, construct an accurate pie chart to represent the results.

$$360 \div 720 = 0.5$$

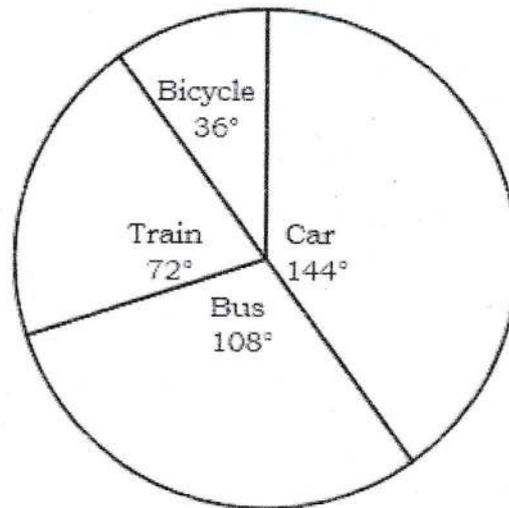


$$\begin{aligned} \text{Apple} &= 190 \times 0.5 = 95^\circ \\ \text{Orange} &= 96 \times 0.5 = 48^\circ \\ \text{Banana} &= 196 \times 0.5 = 98^\circ \\ \text{Pear} &= 38 \times 0.5 = 19^\circ \\ \text{Grape} &= 72 \times 0.5 = 36^\circ \\ \text{Other} &= 128 \times 0.5 = 64^\circ \end{aligned}$$

5.

60 people were asked how they travel to work.

The results are represented in the below pie chart.



$$360 \div 60 = 6$$

(a) How many people answered 'Car'?

$$144 \div 6 = 24$$

(b) How many people answered 'Bus'?

$$108 \div 6 = 18$$

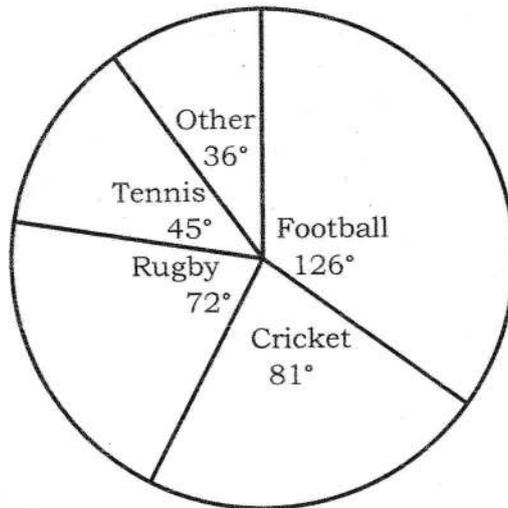
(c) How many people answered 'Train'?

$$72 \div 6 = 12$$

(d) How many people answered 'Bicycle'?

$$36 \div 6 = 6$$

6.
 120 people were asked their favourite sport.
 The results are represented in the below pie chart.



$$360 \div 120 = 3$$

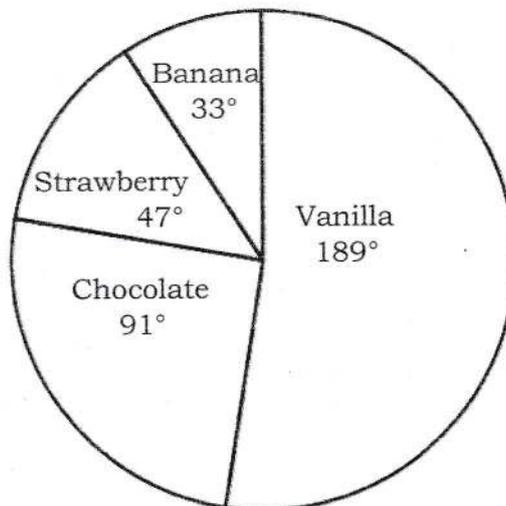
(a) How many people answered 'Cricket'?

$$81 \div 3 = 27$$

(b) How many people answered 'Rugby'?

$$72 \div 3 = 24$$

7.
 1800 people were asked their favourite flavour of ice cream.
 The results are represented in the below pie chart.



$$360 \div 1800 = 0.2$$

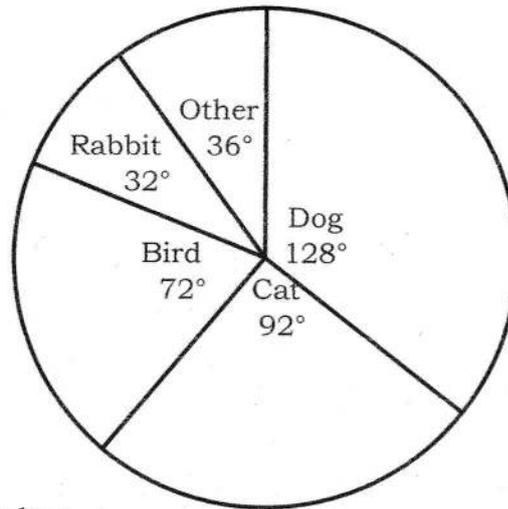
How many more people answered 'Vanilla' than 'Chocolate'?

$$\begin{aligned} \text{Vanilla} &= 189 \div 0.2 = 945 \\ \text{Chocolate} &= 91 \div 0.2 = 455 \end{aligned}$$

$$945 - 455 = \underline{490}$$

8.

The below pie chart shows the number of different animals at an animal shelter.



There are 64 dogs at the shelter.

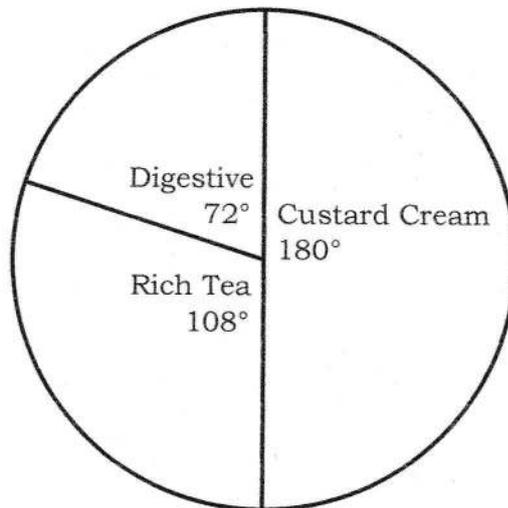
Work out how many animals there are at the shelter in total.

$$128 \div 64 = 2$$

$$360 \div 2 = \underline{180}$$

9.

The below pie chart shows the different types of biscuit in a biscuit tin.



There are 12 Rich Tea biscuits in the tin.

How many biscuits are in the tin in total?

$$108 \div 12 = 9$$

$$360 \div 9 = \underline{40}$$

10.

The below pie chart shows the different types of dessert a cafe has in stock.



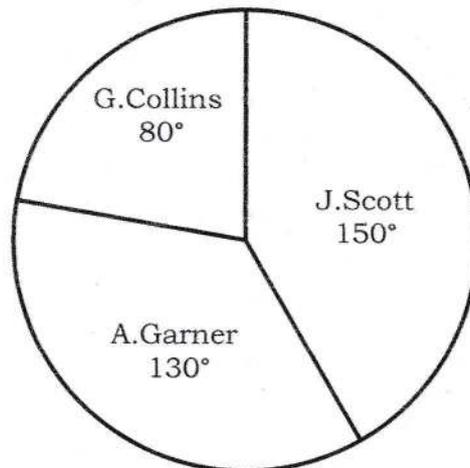
There are 35 muffins in stock.
How many cookies are in stock?

$$140 \div 35 = 4$$

$$104 \div 4 = \underline{26}$$

11.

The pie chart below shows which candidate people voted for in a local election.



2,000 people voted for Gareth Collins.
How many more people voted for John Scott than Amy Garner?

$$80 \div 2000 = 0.04$$

$$J. Scott = 150 \div 0.04 = 3,750$$

$$A. Garner = 130 \div 0.04 = 3,250$$

$$3,750 - 3,250 = \underline{500}$$

12.

3,000 people were asked their favourite soft drink.

The results are partially shown in the table.

Soft Drink	Coke	Sprite	Fanta	Pepsi	Other
Frequency	850	700	450	650	350

In the space below, construct an accurate pie chart to represent the results.

$$3000 - 850 - 700 - 450 - 650 = 350$$

$$360 \div 3000 = 0.12$$

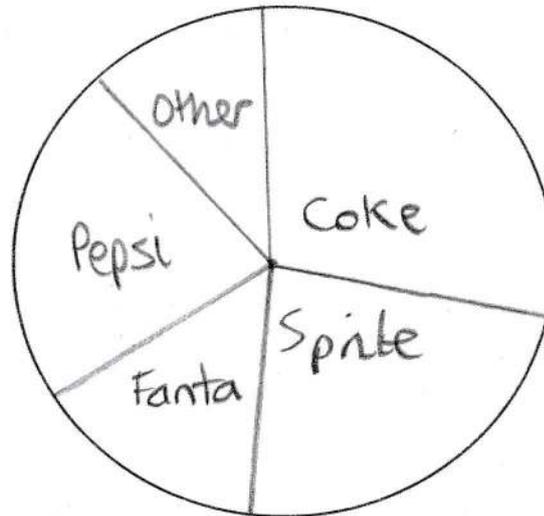
$$\text{Coke} = 850 \times 0.12 = 102$$

$$\text{Sprite} = 700 \times 0.12 = 84$$

$$\text{Fanta} = 450 \times 0.12 = 54$$

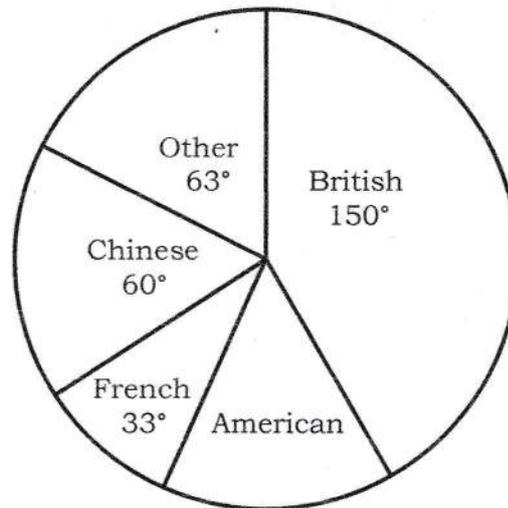
$$\text{Pepsi} = 650 \times 0.12 = 78$$

$$\text{Other} = 350 \times 0.12 = 42$$



13.

The pie chart below shows the nationalities of a group of people.



There were 180 Americans in the group.

How many of the people in the group were not British?

$$360 - 150 - 63 - 60 - 33 = 54^\circ = \text{American}$$

$$54 \div 180 = 0.3$$

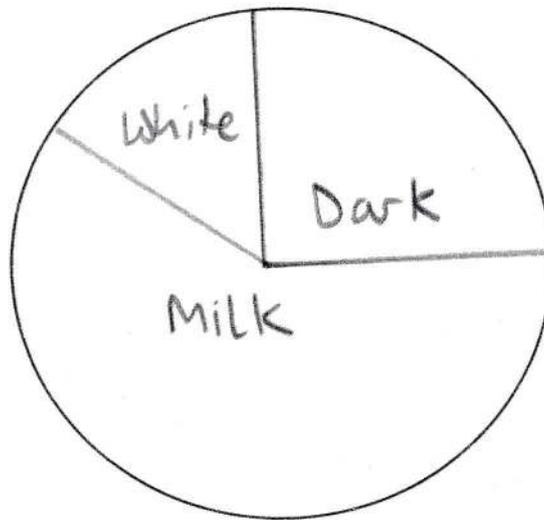
$$\text{Not British} = 360^\circ - 150^\circ = 210^\circ \div 0.3 = \underline{700}$$

14.

A group of people were asked whether they preferred white, milk or dark chocolate. 60% of the people said milk, 25% said dark and the rest said white.

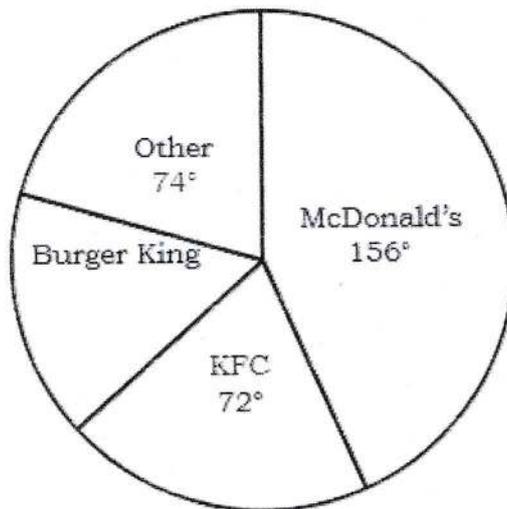
In the space below, construct an accurate pie chart to represent the results.

$$100 - 60 - 25 = 15\%$$
$$\text{Milk} = 60\% \times 360 = 216^\circ$$
$$\text{Dark} = 25\% \times 360 = 90^\circ$$
$$\text{White} = 15\% \times 360 = 54^\circ$$



15.

A group of people were asked their favourite fast food restaurant. The results are represented in the below pie chart.



145 people answered 'Burger King'.

How many more people said McDonald's than KFC?

$$360 - 156 - 74 - 72 = 58^\circ$$

$$58 \div 145 = 0.4$$

$$\text{McDonald's} = 156 \div 0.4 = 390$$

$$\text{kFC} = 72 \div 0.4 = 180$$

$$390 - 180 = \underline{210}$$