

**Pie Charts (Basics)** www.m4ths.com

**Task 1 – Knowing the Circle**

(1) There are \_\_\_\_\_ degrees in a circle.

(2) Complete the table below

$360 \div 10 =$	$360 \div 18 =$
$360 \div 20 =$	$360 \div 40 =$
$360 \div 36 =$	$360 \div 90 =$
$360 \div 200 =$	$360 \div 100 =$

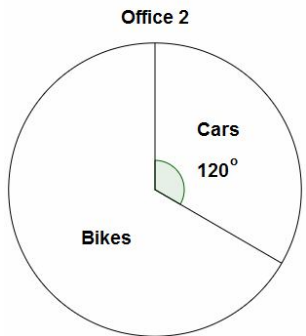
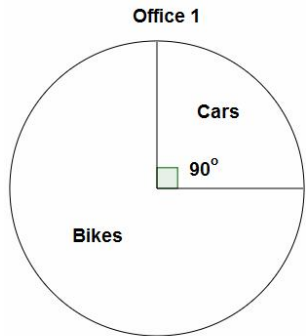
**Task 2 – Interpreting Pie Charts**

(1) People in 2 different offices (Office 1 and Office 2) were asked which method of transport they preferred, car or bike. The results are shown in the two pie charts below.

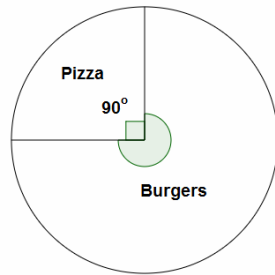
(a) Write down how many degrees bikes represents in each pie chart.

(b) Write down the **fraction** of people that chose cars and the **fraction** that chose bikes for each office.

(c) Write down the ratio of cars to bikes in each pie chart.

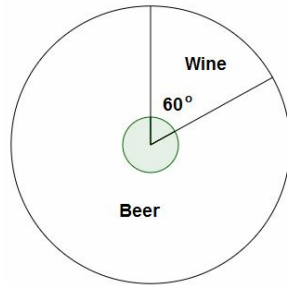


(2) In a survey 48 people were asked if they preferred pizza or burgers. The pie chart shows the results of the survey.



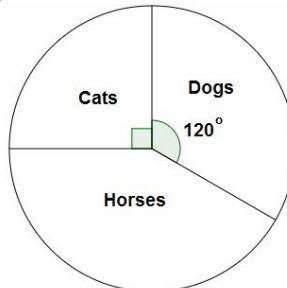
(a) How many people chose burgers?  
 (b) What percentage of the people chose pizza?

(3) In a survey 60 people were asked if they liked wine or beer. The results are shown in the pie chart below.



(a) How many chose wine?  
 (b) What was the ratio of people who chose wine to the people who chose beer?

(4) At a school children were asked what their favourite animal was. The results are shown in the pie chart below. Given that 16 people chose dogs, find out how many people chose cats and how many chose horses.



**Task 3 – Constructing Pie Charts**

Draw an accurate, fully labelled pie chart using a protractor and compass for each of the following tables.

(1) Peoples favourite colour.

Colour	Frequency	Degrees	Total Degrees
Red	10		
Blue	16		
Green	6		
Other	4		

(Total is 36)

(2) Peoples favourite food.

Food	Frequency	Degrees	Total Degrees
Pizza	10		
Chips	24		
Indian	16		
Burgers	4		
Other	6		

(Total is 60)

(3) Peoples favourite holiday destinations.

Place	Frequency	Degrees	Total Degrees
USA	5		
Europe	3		
UK	6		
Russia	1		
Other	3		

(4) Peoples eye colour.

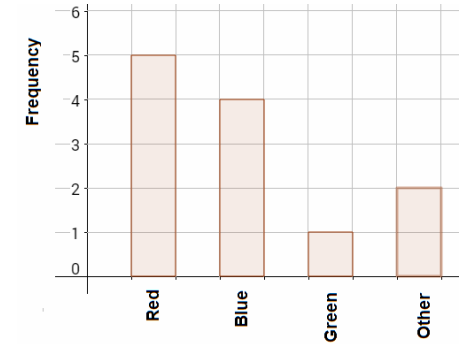
Colour	Frequency
Brown	32
Blue	3
Green	10

(5) Peoples age.

Age	Frequency	Degrees
$0 < a \leq 10$	$2N$	
$10 < a \leq 20$	$N$	
$20 < a \leq 40$	$4N-1$	
$40 < a \leq 60$	$2N-4$	
Total	40	

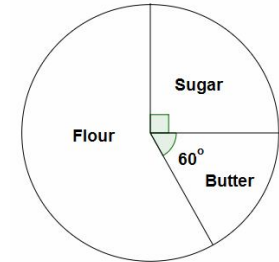
**Task 4 – Mixed Exam Style Questions**

(1) Draw a fully labelled pie chart using the information from the bar chart below.



Favourite Colour

(2) Below is a pie chart showing all of the ingredients used to make a cake.



State which of the following are true, false or we don't have enough information to answer:

- (a) Butter was 1/6 of the ingredients used.
- (b) 90g of sugar was used to make the cake.
- (c) Exactly twice as much flour was used than butter.
- (d) The ratio of sugar to other ingredients is 1:3

(3) 72 people were surveyed about their favourite colour. How many chose pink?

