

Pie Charts 2 www.m4ths.com

Task 1 – Knowing % and Fractions

(1) Write each of the following as a simplified fraction:

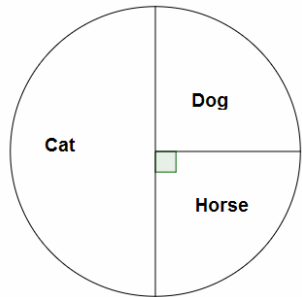
- (a) 90° as a fraction of 360°
- (b) 60° as a fraction of 360°
- (c) 45° as a fraction of 360°
- (d) 120° as a fraction of 360°
- (e) 270° as a fraction of 360°
- (f) 180° as a fraction of 360°
- (g) 75° as a fraction of 360°

(2) Write each of the following as a percentage:

- (a) 90° as a percentage of 360°
- (b) 36° as a percentage of 360°
- (c) 72° as a percentage of 360°
- (d) 180° as a percentage of 360°
- (e) 144° as a percentage of 360°
- (f) 126° as a percentage of 360°

Task 2 – Interpreting Pie Charts

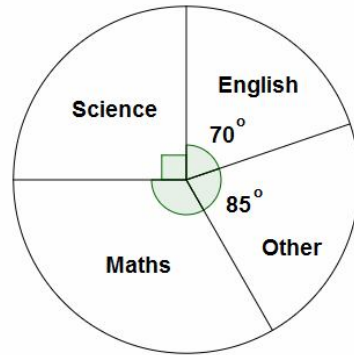
(1) The pie chart below shows information about people's favourite animals.



- (a) What fraction chose horse?
- (b) What percentage didn't choose dog?
- (c) What fraction chose cat?
- (d) What is the ratio of people who chose cat to people who chose dog?

(2) In a survey 45 people were asked about their favourite food. When the pie chart was drawn the sector representing chips was 40° . How many people chose chips as their favourite food?

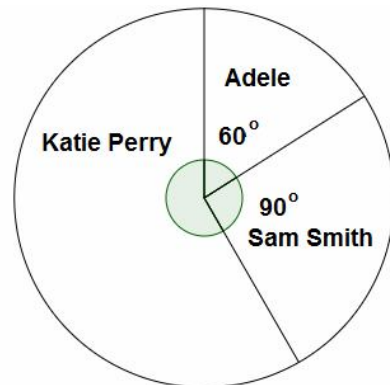
(3) 72 students were asked about their favourite school subject. The pie chart shows the results below.



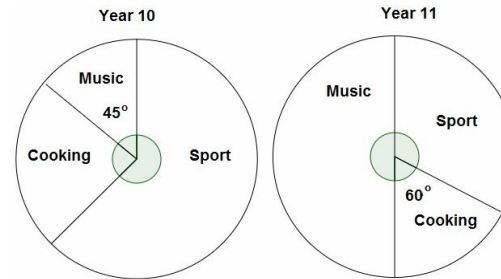
- (a) Calculate $360 \div 72$.
- (b) How can you use your answer to part (a) to help with this question?
- (c) How many people chose English?
- (d) How many people chose Maths?
- (e) What percentage of the students didn't choose Science?

(3) At school a survey was conducted about people's favourite musicians. The pie chart below shows the results. Given that 14 people liked Adele:

- (a) Find how many people were surveyed.
- (b) Find how many like Sam Smith.
- (c) Find how many liked Katie Perry.
- (d) Find how many liked One Direction.
- (e) Write down the ratio of people who like Adele to the people who liked the other 2 artists

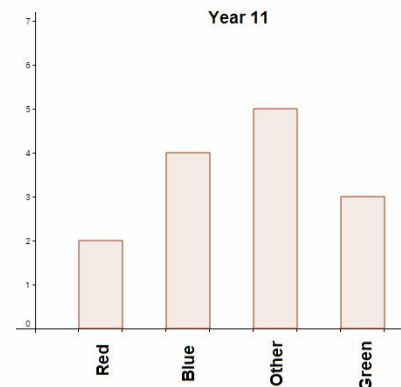
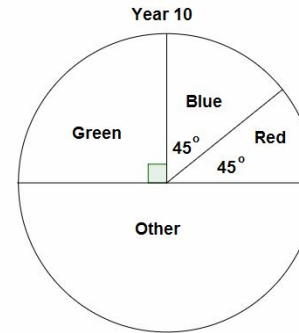


(4) The pie chart shows information about after school clubs at a High School. There are 120 students in Year 10 and the same number in Year 11. 25% of year 10s did cooking One in two year 11s did music



How many more students in Year 10 did sport than students in Year 11?

(5) Year 10 and Year 11 were surveyed about their favourite colour. Given that 10 year 10 students chose Green, how many more year 10 chose Red than Year 11?

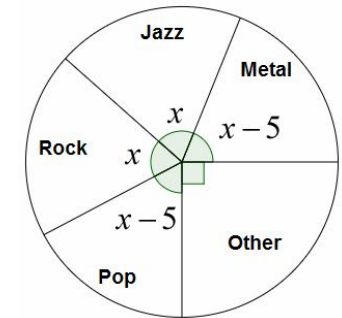


(6) A Pie chart has two sections, Chips and Pizza. The ratio of Chips to Pizza is 2:1. Draw and accurate pie chart to represent this information.

(7) A survey was conducted to find people's favourite foods. Draw an accurate pie chart using the following information gathered below:

1 in 6 of the people asked chose Pizza.
25% of those asked chose Chips.
The ratio of those choosing Burgers to those choosing Pizza in the survey was 2:1
The rest of the people asked chose Hot Dogs.

(8) The pie chart below shows information about people's favourite type of music.



- (a) How many degrees does Other represent?
- (b) Explain why $4x - 10 = 270$.
- (c) Given that 18 people chose Other, find out how many people chose Pop, chose Rock, chose Jazz and chose Metal.
- (d) Write down the ratio of people who chose Jazz to people who chose Other.

(9) Draw a fully labelled pie chart using the information in the table below

| Favourite Colour | Frequency | Degrees | Total Degrees |
|------------------|-----------|-------------|---------------|
| Red | 17 | | |
| Blue | | 115° | |
| Yellow | 4 | 20° | |
| Black | | 80° | |
| Other | | | 360° |