

# Reading from Pie Charts

Pie charts are a circle split into different sized sections where each section of the pie chart represents a different category.

They must have a key but do not have to contain any numerical values

Pie charts can be used to:

- represent univariate data
- compare 2 or more sets of unpaired data.

For data sets that are unequal in size we should use proportionate **comparative pie charts**

## IMPORTANT:

They show us the **proportion** of data within various categories not the total

Without knowing the total population for a pie chart we cannot know the total of each category but we can compare the **proportions**

To calculate the number in a given category we use a manipulation of the formula:

proportion X total

OR

$\frac{\text{angle}}{360} \times \text{total}$

For each of the following, answer the questions which relate to the pie chart

What proportion of the sales happened in the 1<sup>st</sup> quarter?

\_\_\_\_\_ %

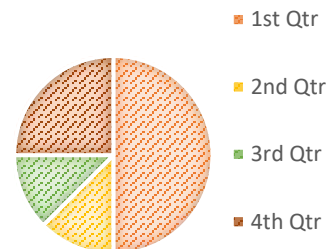
What proportion of the sales happened in the 2<sup>nd</sup> quarter?

\_\_\_\_\_ %

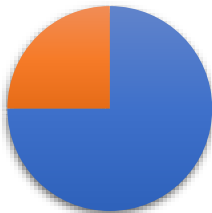
What proportion of the sales happened in the 4<sup>th</sup> quarter?

\_\_\_\_\_ %

## SALES



## Stay for A Level



■ Male ■ Females

Which sex of student is most likely to stay on for A Levels?

\_\_\_\_\_

What proportion of students staying on for A Levels are male?

\_\_\_\_\_ %

How many more males stay on for A Level than females?

\_\_\_\_\_

In which house were most pupils?

\_\_\_\_\_

What proportion of pupils were in Pegasus?

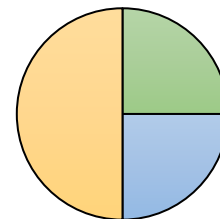
\_\_\_\_\_ %

A total of 520 pupils are at the school

How many of them are in Unicorn house?

\_\_\_\_\_

## Pupils



■ Unicorn ■ Pegasus ■ Griffin

## Accidents



■ 17-24 ■ 25-40 ■ 41-65 ■ 66+

Which age category has the most accidents?

\_\_\_\_\_

A total of 1246 accidents were recorded in 2019.

How many of them were by 17 – 24 year olds?

\_\_\_\_\_

How many of them were by 66+ year olds?

\_\_\_\_\_

# Solutions

What proportion of the sales happened in the 1<sup>st</sup> quarter?

50 %

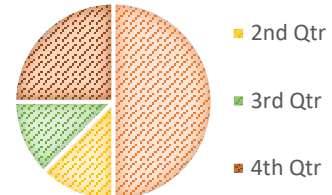
What proportion of the sales happened in the 2<sup>nd</sup> quarter?

12.5 %

What proportion of the sales happened in the 4<sup>th</sup> quarter?

25 %

## SALES



## Stay for A Level



■ Male ■ Females

Which sex of student is most likely to stay on for A Levels?

males

What proportion of students staying on for A Levels are male?

75 %

How many more males stay on for A Level than females?

3 times as many

In which house were most pupils?

Griffin

What proportion of pupils were in Pegasus?

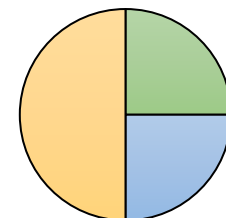
25 %

A total of 520 pupils are at the school

How many of them are in Unicorn house?

130

## Pupils



■ Unicorn ■ Pegasus ■ Griffin

## Accidents



■ 17-24 ■ 25-40 ■ 41-65 ■ 66+

Which age category has the most accidents?

17-24

A total of 1248 accidents were recorded in 2019.

How many of them were by 17 - 24 year olds?

624

How many of them were by 66+ year olds?

312