

Describing Charts, Graphs and Diagrams

Useful Graph Vocabulary

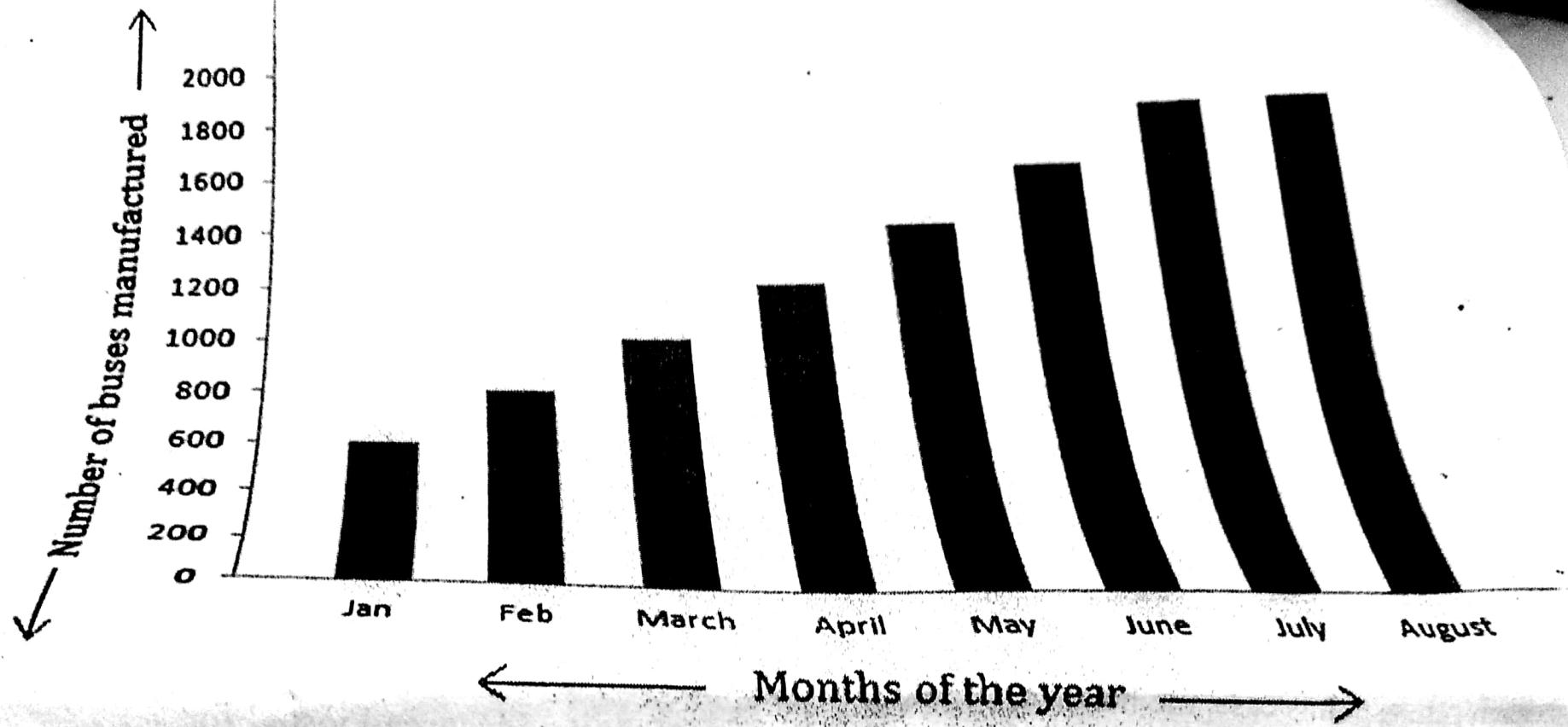
UP: increase / rise / grow / went up / soar / double / multiply / climb / exceed /
DOWN: decrease / drop / fall / decline / plummet / halve / depreciate / plunge

UP & DOWN: fluctuate / undulated / dip /
SAME: stable (stabilised) / levelled off / remained constant or steady / consistent
CHANGES: gently / gradually / slightly / steadily / a little /
CHANGES: suddenly / sharply / dramatically / steeply / sudden
TOP: reached a peak / peaked / reached its highest level /
BOTTOM: bottomed out / sank to a trough / the lowest level

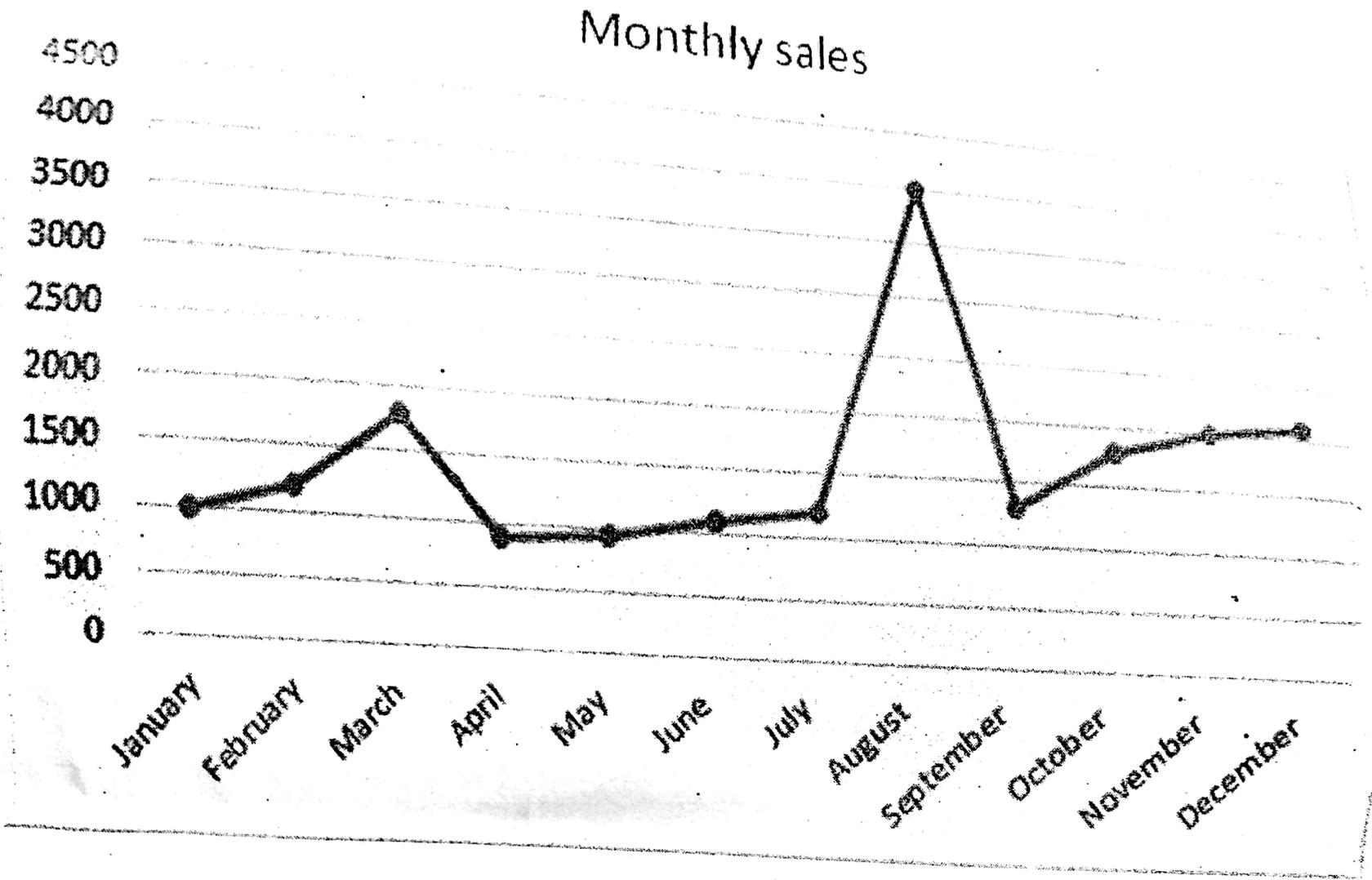
Graphs, Charts & Diagrams

Data can be represented in many ways. The 4 main types of graphs are a bar graph or bar chart, line graph, pie chart, and diagram.

Bar graphs are used to show relationships between different data series that are independent of each other. In this case, the height or length of the bar indicates the measured value or frequency. Below, you can see the example of a bar graph which is the most widespread visual for presenting statistical data.

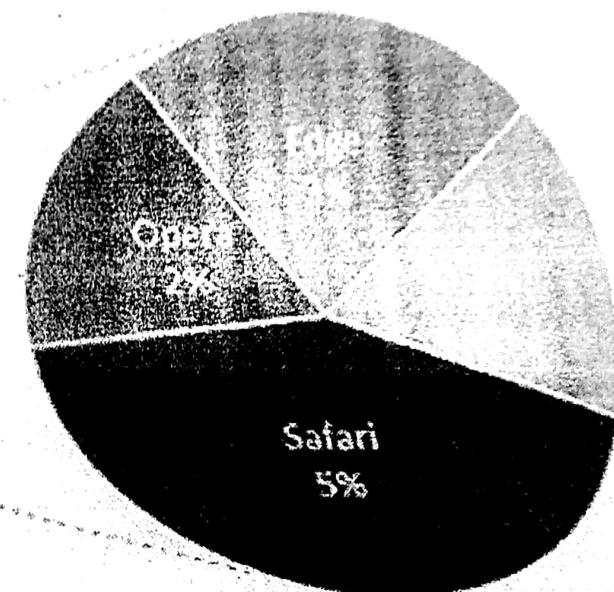
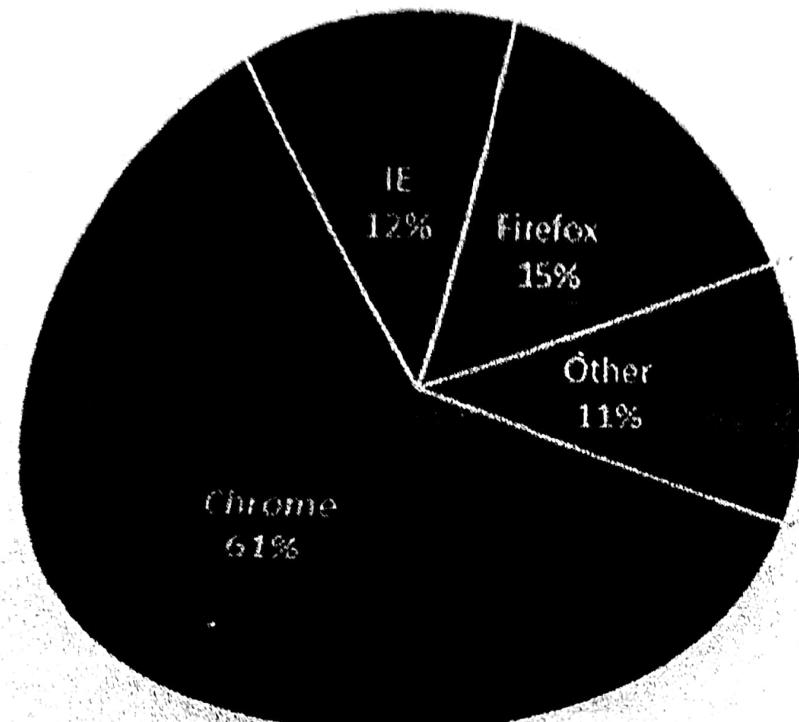


Line graphs represent how data has changed over time. This type of charts is especially useful when you want to demonstrate trends or numbers that are connected. For example, how sales vary within one year. In this case, financial vocabulary will come in handy. Besides, line graphs can show dependencies between two objects during a particular period.



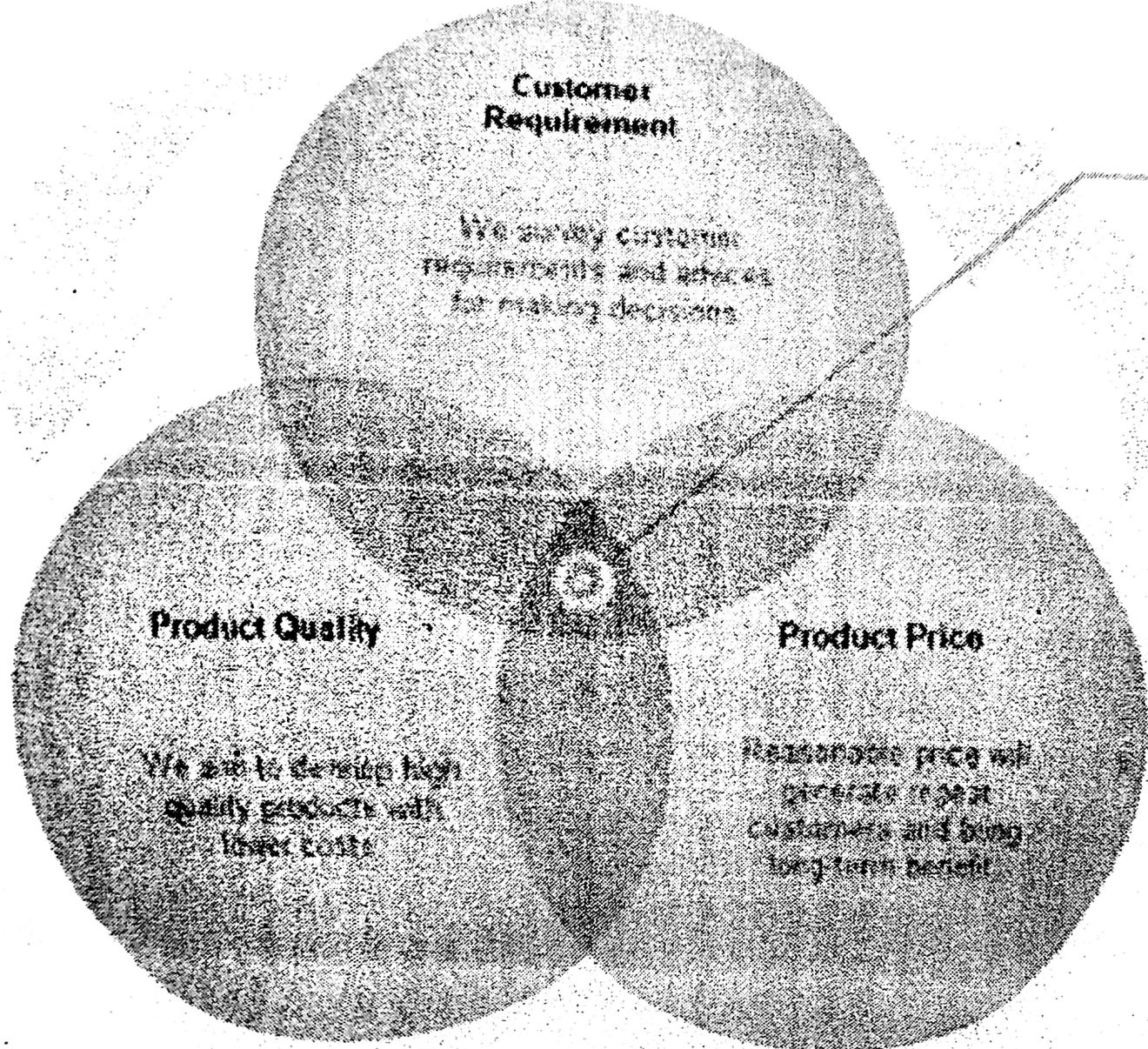
Pie charts are designed to visualize how a whole is divided into various parts. Each segment of the pie is a particular category within the total data set. In this way, it represents a percentage distribution.

Desktop Browser Market Share 2016



EXCELETC

Diagram is a plan, drawing, or outline created to illustrate how separate parts work and overlap at the connecting points.



How to begin a description

Once you create a fascinating graph for your presentation, it is time to know how to describe graphs, charts, and diagrams. To catch your audience's attention from the very beginning, you can use the following *phrases for introduction*:

- Let me show you this bar graph...
- Let's turn to this diagram...
- I'd like you to look at this map...

- If you look at this graph, you will notice...
- Let's have a look at this pie chart...
- If you look at this line chart, you will understand...
- To illustrate my point, let's look at some charts...

How to describe diagrams and other visuals: naming the parts

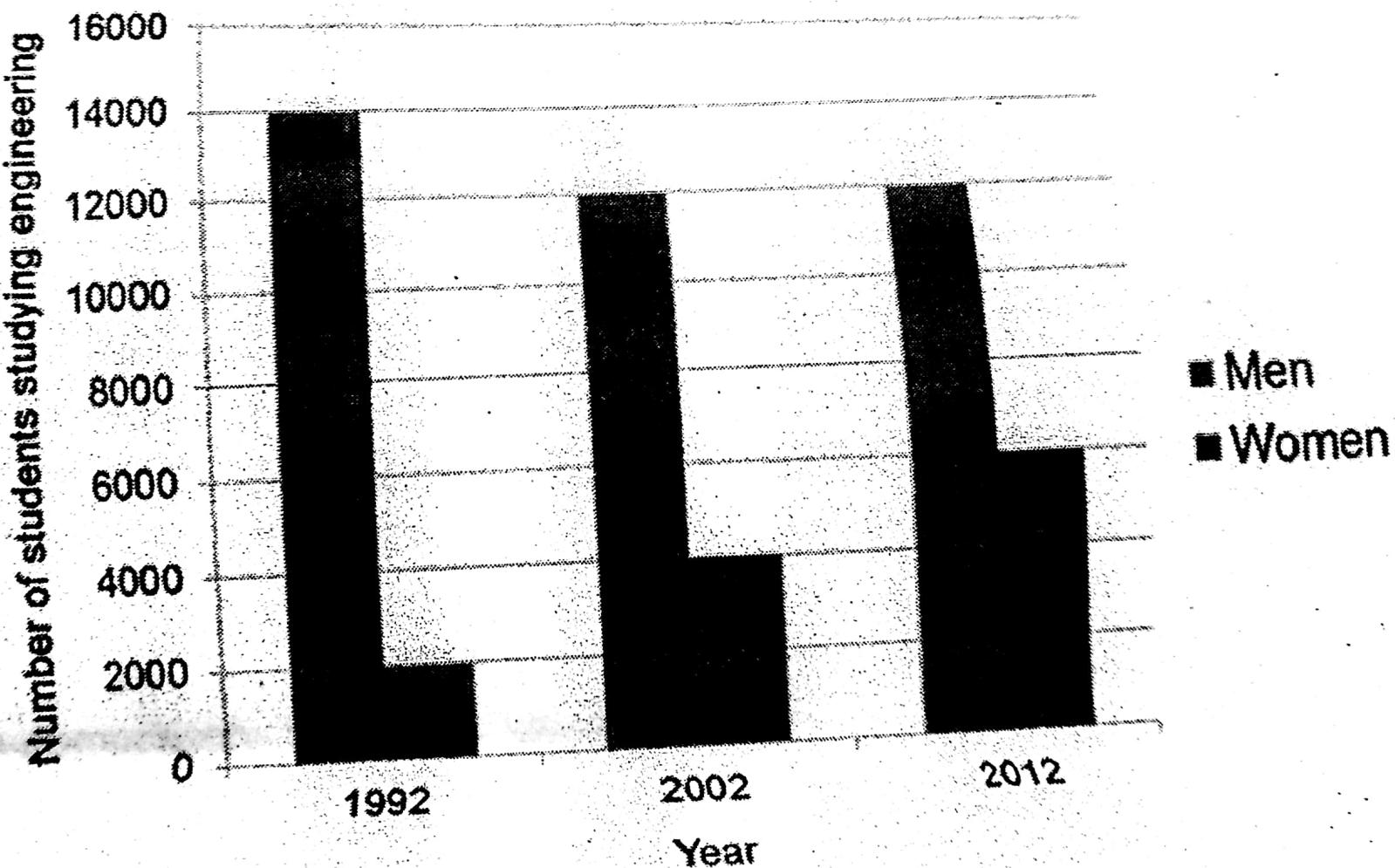
To describe diagrams or any other type of graphs as clearly as possible, you should name each visual element. For example:

- **The vertical axis shows...**
- **The horizontal axis represents...**
- **This curve illustrates...**
- **The solid line shows...**
- **The shaded area describes...**
- **This colored segment is for...**
- **The red bar...**

Exam question

The bar chart below shows the number of men and women studying engineering at Australian universities.

Summarise the information in the chart by selecting and reporting the main features. Make comparisons where relevant.



The bar chart illustrates the number of men and women studying engineering at Australian universities between the years 1992 and 2012 at 10-year intervals.

It can be seen that the number of male students fell slightly from 14,000 in 1992 to 12,000 in 2002, and then remained level through the following decade. The number of female students is relatively low, starting at 2,000 in 1992. However, while the number of men decreased, the number of women increased. Female students grew steadily by 2,000 each decade. This led to a rise in the total number of engineering students from 16,000 to 18,000 in this period.

Men continue to make up the majority of students. However, the proportion of female students increased sharply in this period. In 1992 there was one woman to every seven men, but by 2012 this had narrowed to one woman to every two men.

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How to describe line graphs

Now, when you know how to describe bar charts, what about line graphs? This type of charts converts information into points on a grid that is connected with a line to represent trends, changes, or relationship between objects, numbers, dates, etc. These lines show movement over time affected by the increase or decrease in the key factors.

To express the movement of the line, you should use appropriate verbs, adjectives, and adverbs depending on the kind of action you need to show. For this, you should use the following vocabulary:

Verbs: *rise, increase, grow, go up to, climb, boom, peak, fall, decline, decrease, drop, dip, go down, reduce, level up, remain stable, no change, remain steady, stay constant, stay, maintain the same level, crash, collapse, plunge, plummet.*

Adjectives: *sharp, rapid, huge, dramatic, substantial, considerable, significant, slight, small, minimal, massive.*

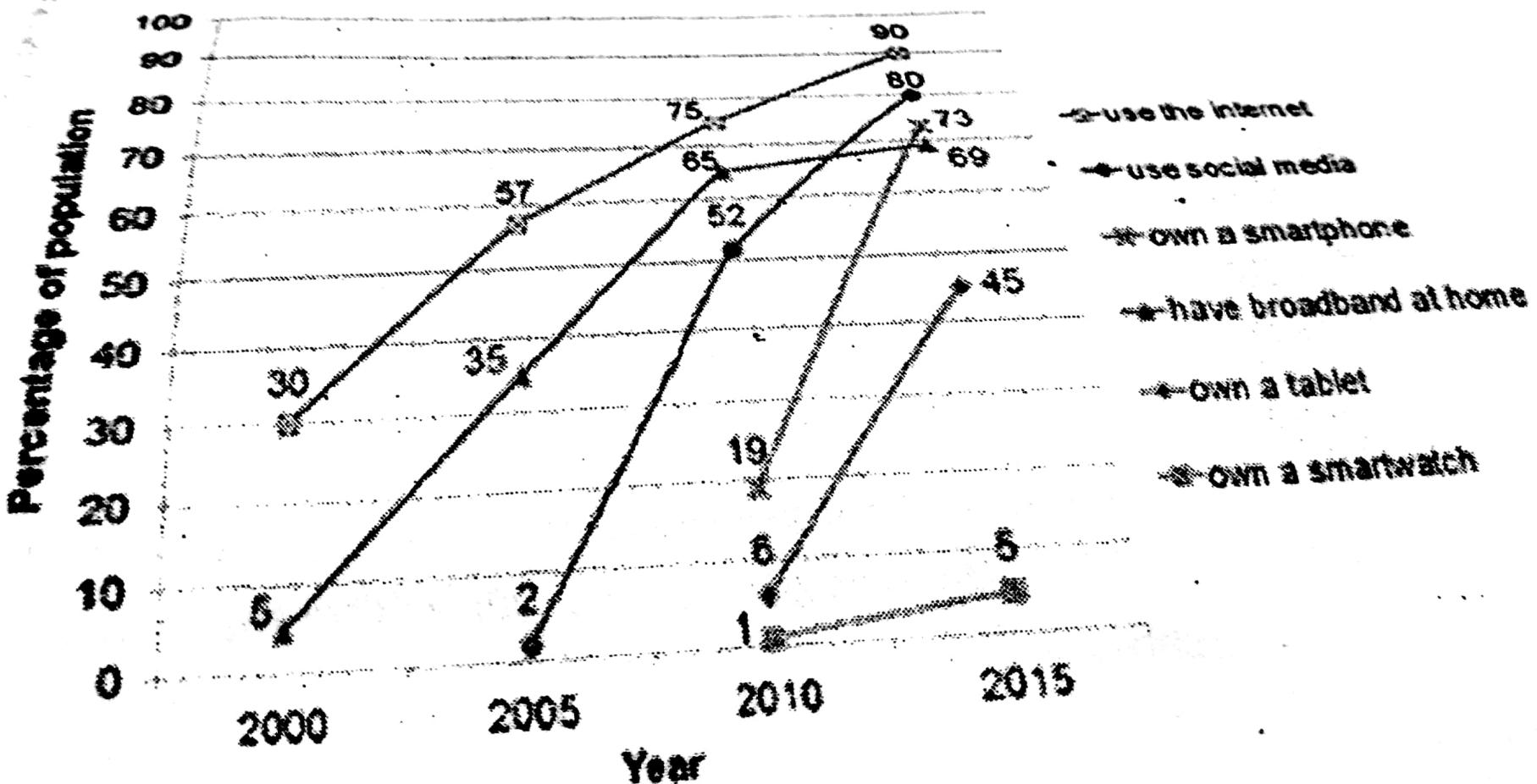
Adverbs: *dramatically, rapidly, hugely, massive, sharply, steeply, considerably, substantially significantly, slightly, minimally, markedly.*

There is also a list of adverbs to describe the speed of a change: *rapidly, quickly, swiftly, suddenly, steadily, gradually, slowly.*

... changes in the UK over time.

There is also a list of adverbs to describe the speed of a change: rapidly, quickly, swiftly suddenly, steadily, gradually, slowly.

The graph shows information about technology usage in the UK over time. Summarise the information by selecting and reporting the main features. Make comparisons where relevant.



The graph shows the rate at which British people adopted new technology over a 15-year period from 2000 to 2015. The figures are given as percentages of the population.

Overall, there was widespread adoption of new technology during these years. Nearly nine out of ten people in the UK were online by 2015. The figures for having broadband in the home, ownership of a smartphone and use of social media platforms were all high that year too, at around 70 to 80 per cent, and nearly half the population owned a tablet. The only exception to this is smartwatch ownership, which remained comparatively low at 5 per cent.

If we look at the trends over time, we can see that the uptake of new technology increased dramatically in this period. For example, internet usage [increased] and social media usage grew strikingly by 78 percentage points. Smartphones and tablets appeared in 2010 and, similarly, these followed a steep upward trajectory. However, for some products, the graph shows that growth slowed down noticeably after an initial [spurt]. Social media usage, for instance, was near zero in 2005 and [rose] to 52 per cent in 2010, before climbing more slowly to 80 percent in 2015. Also, broadband subscriptions rose steadily by 30 percentage points every five years to 2010, but by a modest 4 percentage points after then. In contrast, the newer technologies such as tablets showed no sign of [slowing down].

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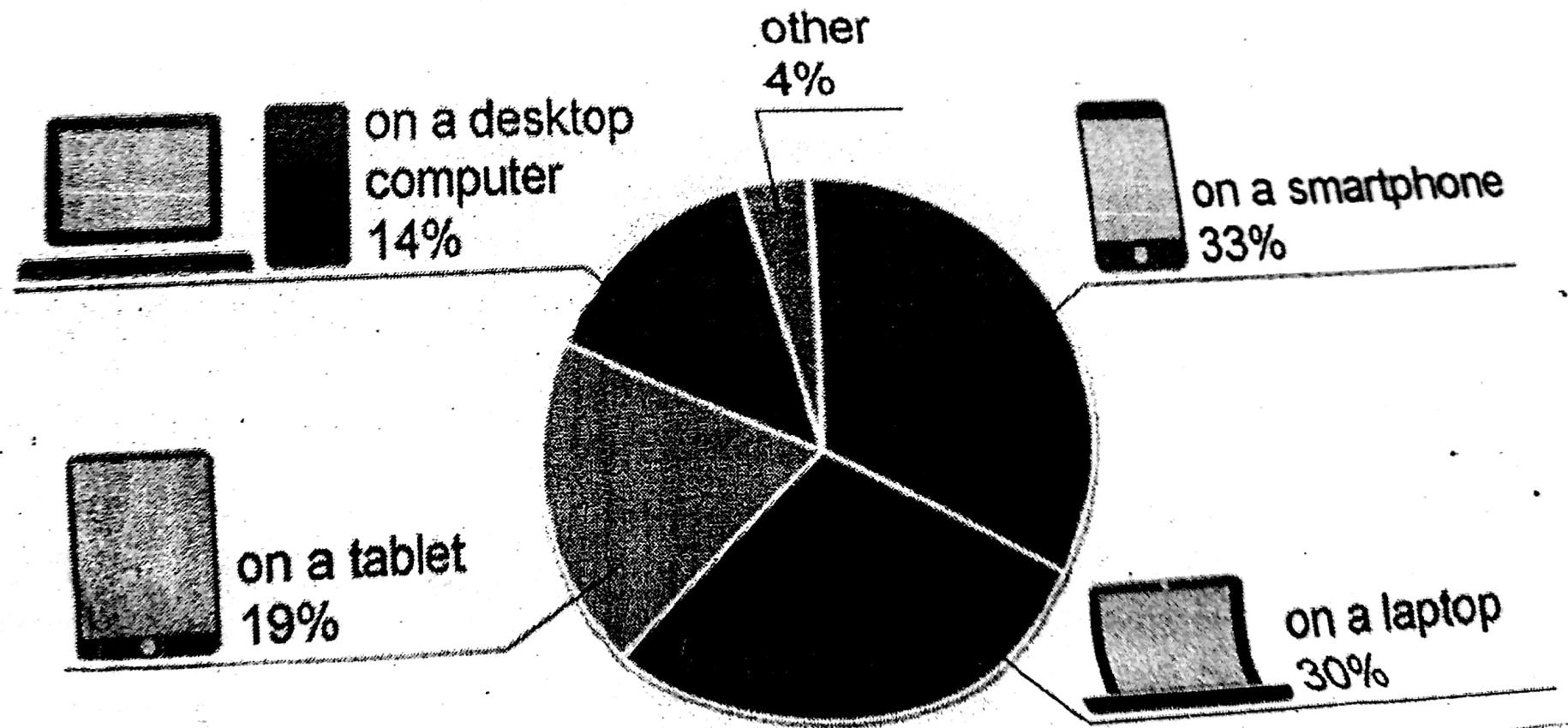
How to describe pie charts

The pie chart is primarily used to illustrate how different parts make up a whole. The best way to present your data in a pie chart is to compare the categories with each other. The following comparison words can be used interchangeably:

- to compare
- compared to
- as opposed to
- versus
- more than
- the majority of

- only a small monitor
- greater than
- less than

Here we have an example of a pie chart that represents how internet users aged 16+ prefer to browse the web:



This graph shows the results of a survey in which people aged 16 and over were asked about their preferred devices for accessing the internet. The question referred to going online at home and in other places. Participants mentioned four main devices in their answers: a smartphone, a laptop, a tablet and a desktop computer.

From the pie chart it is clear that the majority of participants prefer to use smartphones and laptops, with just three per cent difference between the two. Nearly a third of participants prefer to go online with a smartphone.

Thirty per cent like to use a laptop. A desktop computer accounts for fourteen per cent of users' preferred devices. Only a small minority prefer a device other than these main four.

In conclusion, since mobile and portable devices are the most popular choices, it is clear that many participants are accessing the internet outside their homes. The desktop computer is the least popular of the four main devices. In future, we can probably expect to see more and more people accessing the internet with smartphones as their preferred choice.

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Tips

- If you are doing an exam task, read the instructions and make sure you write according to the word and time limits.
- Start by saying what the charts show. In an exam, change the words in the question to write the first sentence of your answer, e.g. These charts show = These charts illustrate.
- The second paragraph should provide an overview of the key features of the information.
- The other paragraphs should describe the patterns or trends in more detail. However, only select the most important ones to write about, and don't write about your own ideas.
- Use linking words and a range of vocabulary to describe what you see in the charts. (You can write % or per cent, but be consistent.)
- Be careful to use the correct tenses to describe the time periods shown.