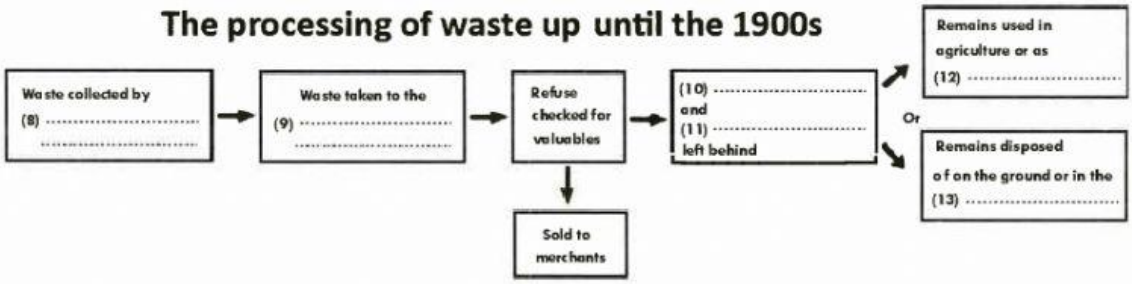
Tips & Techniques — Flow chart completion

Sample Task:

Question 8-13: *Complete the flow chart below using* ***NO MORE THAN TWO WORDS*** *from the text.*



▸ **Tip 1:** This task requires you to use exact words and phrases from the text. Do not try to use different words that have the same meaning- your answer will be marked wrong even if the meaning is correct.

▸ **Tip 2:** Look at how the flow chart is organised; arrows often indicate results, stages or changes.

▸ **Tip 3:** Check for 'cause and effect' relationships.

cause, effect, result, consequently, because, in consequence, as a result, subsequently, for this reason, because of, hence, in view of the fact, due to, consequently, for this reason, in the view of, since, on account of, for the sake of, thus, therefore, accordingly, by virtue of

cause, affect, end in, lead to, contribute, follow, make, produce, encourage, provoke, result, conduce, spark, engender, generate, create, originate, induce, trigger, impact, influence, bring about

▸ **Tip 4:** Look for the same number of points and identify the relationship between them, e.g. linking words, like *Firstly* indicates a sequence. Find the part of the text that relates to the chart.

▸ **Tip 5:** Read the instructions carefully. Notice how many words you can use to answer each question. The number of words may vary; you may be asked to write one, two or three words in each question. The instructions will also tell you if you need to use a number for your answer.

▸ **Tip 6:** This task often, but not always, focuses on one part or section of the reading passage, rather than on pieces of information spread throughout the text.

▸ **Tip 7:** Answers do not always come in order.

▸▸ Task approach:

- Underline the keywords in each question and try to work out what information you need.
- Try to predict some of the missing words.
- Skim and scan the text, focusing on relevant information. Use the key words in the questions to locate the answers in the passage. Look out for synonyms and parallel expressions. Read carefully once you find the search areas.
- Use the words exactly as given in the text. Don't change them.
- Make sure your answers make sense both logically and grammatically.
- Check your spelling

IELTS Reading Tasks (Example 1) **Flowchart completion**

▶ **Sugar**

Raw sugar comes from sugar cane. When the cane is harvested, it first goes to mills, usually in the same region, and raw sugar is extracted from it. This is then sent in bulk to refineries, which are often located in heavy sugar-consuming countries. There are several stages in the refining process, starting with affination, which includes the removal of various impurities by using a centrifuge. Eventually the recovery stage is reached, which leaves white sugar and a sweet byproduct which is often used as cattle feed.

*Complete the flowchart below. Choose **NO MORE THAN ONE WORD** from the passage for each answer.*

Sugar cane sent to 1 .....

▼

Raw sugar shipped to 2 .....

▼

3..... in the sugar are removed

▼

4..... stage: by-product may be eaten by 5 .....

IELTS Reading Tasks (Example 2) **Flowchart completion**

▶ **From flax to linen**

Firstly, the straw stems are spread into a continuous even layer and turned at a certain angle to make sure each stem is parallel. Secondly, they undergo a process where the straw stems are first crushed and broken in breaking machines to separate the woody central portion of the flax stem. The wood breaks up while the fiber bends and remains intact. The resultant straw coming from the breaking machine is called crude fiber

The final and most important operation of obtaining the long fiber is carried out by special machines. The crude fiber is held tightly near one end while the free end is subjected to a beating and scraping action. This completes the process where the long fiber is separated from the woody portion. The long fiber is then quality-graded and pressed together. The shorter fiber is used for making boards and panels.

*Complete the flowchart below. Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

▼ The process to separate long and short fibres

Straw stems spread out 1 ..... to one another

Stems crushed mechanically

Wood breaks up

Separated from 2 ..... (flexible and does not break)

One end crude fibre held tightly: other undergoes beating and 3 .....

4 ..... then graded and pressed together

Short fibre used for making boards and panels

IELTS Reading Tasks (Example 3) **Flowchart completion**

▶ **Their social life online: a parents' guide**

'Social networking is becoming a creative force: teenagers are making videos, joining YouTube groups, podcasting and blogging about the things that interest them. Sites like Pinterest, which is like a digital look-book, and Instagram, a photosharing network, are transforming creativity, and I think niche networks are going to become more and more common.

Teenagers who use social networking as a creative force will reap the benefits in the world of work, agrees Mungeam. 'One of the fantastic aspects of Facebook and YouTube is the opportunity for collaborating with others to create content, then sharing it with others. Collaboration is a real 21st century skill, and an essential part of being employable in a digital age.

*Label the diagram with words taken from the passage. Write **NO MORE THAN ONE WORD**.*

Skills that improve employability

Social networking

⇩

1 .....

⇩

2 .....

⇩

Enhanced employability

IELTS Reading Tasks (Example 4)

▶ The history of the poster

As a result of this technical difficulty, the invention of the lithographic process had little impact on posters until the 1860s, when Jules Cheret came up with his 'three-stone lithographic process'. This gave artists the opportunity to experiment with a wide spectrum of colours.

Although the process was difficult, the result was remarkable, with nuances of colour impossible in other media even to this day. The ability to mix words and images in such an attractive and economical format finally made the lithographic poster a powerful innovation.

Starting in the 1870s, posters became the main vehicle for advertising prior to the magazine era and the dominant means of mass communication in the rapidly growing cities of Europe and America. Yet in the streets of Paris, Milan and Berlin, these artistic prints were so popular that they were stolen off walls almost as soon as they were hung. Cheret, later known as 'the father of the modern poster', organised the first exhibition of posters in 1884 and two years later published the first book on poster art. He quickly took advantage of the public interest by arranging for artists to create posters, at a reduced size, that were suitable for in-home display.

Thanks to Cheret. the poster slowly took hold in other countries in the 1890s and came to celebrate each society's unique cultural institutions : the cafe in France, the opera and fashion in Italy, festivals in Spain, literature in Holland and trade fairs in Germany. The first poster shows were held in Great Britain and Italy in 1894, Germany in 1896 and Russia in 1897. The most important poster show ever, to many observers, was held in Reims, France, in 1896 and featured an unbelievable 1,690 posters arranged by country.

*Complete the flow chart below. Write **NO MORE THAN THREE WORDS** from the passage for each answer.*

Jules Cheret

1860s - invention of 'three-stone lithographic process'

▼

combination of both 1 ..... on coloured posters

▼

1870s - posters used for advertising and 2 ..... in Europe

▼

1884-86 - Cheret's poster 3 ..... and book on poster art

▼

1890s - posters represent 4 ..... around the world

IELTS Reading Tasks (Example 5) — Flowchart completion

▶ Spider silk cuts weight of bridges: *A strong, light bio-material made by genes from spiders could transform construction and industry*

Scientists have succeeded in copying the silk-producing genes of the Golden Orb Weaver spider and are using them to create a synthetic material which they believe is the model for a new generation of advanced bio-materials. The new material, biosilk, which has been spun for the first time by researchers at DuPont, has an enormous range of potential uses in construction and manufacturing.

At DuPont, researchers have used both yeast and bacteria as hosts to grow the raw material, which they have spun into fibres. Robert Dorsch, DuPont's director of biochemical development, says the globules of protein, comparable with marbles in an egg, are harvested and processed. 'We break open the bacteria, separate out the globules of protein and use them as the raw starting material. With yeast, the gene system can be designed so that the material excretes the protein outside the yeast for better access,' he says.

'The bacteria and the yeast produce the same protein, equivalent to that which the spider uses in the drag lines of the web. The spider mixes the protein into a water- based solution and then spins it into a solid fibre in one go. Since we are not as clever as the spider and we are not using such sophisticated organisms, we substituted man- made approaches and dissolved the protein in chemical solvents, which are then spun to push the material through small holes to form the solid fibre.'

The spider is not the only creature that has aroused the interest of material scientists. They have also become envious of the natural adhesive secreted by the sea mussel. It produces a protein adhesive to attach itself to rocks. It is tedious and expensive to extract the protein from the mussel, so researchers have already produced a synthetic gene for use in surrogate bacteria.

*Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

Synthetic gene grown in 1 ..... or 2 .....

▼

globules of 3 .....

▼

dissolved in 4 .....

▼

passed through 5 .....

▼

to produce a solid fibre

d

IELTS Reading Tasks (Example 6) **Flowchart completion**

▶ **Reverse osmosis**

Once the water has been collected from its source, it is transported to a holding basin. In reverse osmosis, pre-treatment is very important, as the surfaces of the membranes that play a central role in this method of desalination need to remain clean to work effectively and can be easily dirtied and damaged by impurities in the feed water, as it is now called. In the initial part of this pre-treatment stage, pieces of wood and smaller suspended solids like sand are removed by passing the feed water through a particle filter. Then the filtered water is pumped through fine carbon microfilters that trap minerals and contaminants such as pesticides. Chlorine is also removed here as a protective measure, as it would otherwise shorten the life of the membranes. Next, the water is put under high pressure and pushed through the permeable membranes arranged in series, which prevent the passage of dissolved salts in the seawater, while allowing the separated and desalinated product water to pass through. Approximately half the feedwater becomes product water. The remaining 50%, now with a higher concentration of salts, is rejected and returned to the source. In the post- treatment stage, the product water undergoes blending with chemicals and minerals. Finally, the product water is sent to a cistern, where it is stored awaiting distribution for use.

Complete the flow chart below.

*Choose **NO MORE THAN TWO WORDS** from the text for each answer.*

The desalination of sea water by reverse osmosis

Seawater collected from ocean and sent to 1 .....

▼

Initial pre-treatment stage uses 2 ..... to ensure removal of solids.

Removal of 3 ..... also important in order to protect membrane.

▼

Water pumped at 4 .....through series of membranes

5.....are removed here, and separation is completed.

▼

Rejected water is sent back to 6.....

▼

In post-treatment stage, 7.....with chemicals and minerals takes place. Then the product water can be sent to storage.

IELTS Reading Tasks (Example 7) **Flowchart completion**

▶ **Sport Science in Australia**

The professional career paths available to graduates from courses relating to human movement and sport science are as diverse as the graduate's imagination. However, undergraduate courses with this type of content, in Australia as well as in most other Western countries, were originally designed as preparation programmes for Physical Education (PE) teachers.

The initial programmes commenced soon after the conclusion of World War II in the mid-1940s. One of the primary motives for these initiatives was the fact that, during the war effort, so many of the men who were assessed for military duty had been declared unfit. The government saw the solution in the providing of Physical Education programmes in schools, delivered by better prepared and specifically educated PE teachers.

Later, in the 1970s and early 1980s, the surplus of Australians graduating with a PE degree obliged institutions delivering this qualification to identify new employment opportunities for their graduates, resulting in the first appearance of degrees catering for recreation professionals. In many instances, this diversity of programme delivery merely led to degrees, delivered by physical educators, as a sideline activity to the production of PE teachers.

*Complete the flow chart below. Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

The history of sports and physical science in Australia

A lot of people identified as being **1** .....

▼

Introduction of PE to **2** .....

▼

Special training programmes for **3** .....

▼

4 .....of PE graduates

▼

Identification of alternative **5** .....

▼

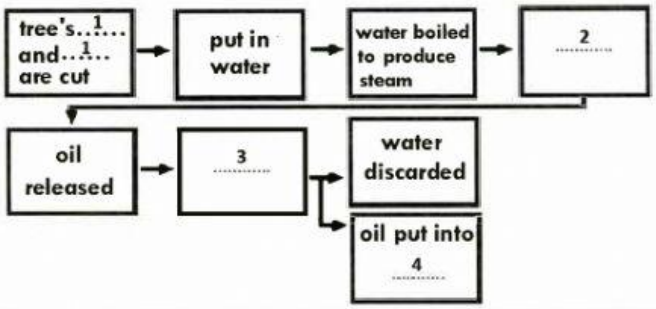
Diversification of course delivery

IELTS Reading Tasks (Example 8) **Flowchart completion**

▶ **Tea Tree Oil :** Contrary to initial assumptions, tea tree oil is not taken from the sap of the tree. It is, in fact, derived from the 'fat' of the tree. Because these trees grow in an area of Australia where climatic conditions vary greatly, they fortify themselves by storing up essential nutrients in small nodules found in their leaves and stems. In the past, the leaves and stems were cut and placed in crude containers of water. Building a fire under the containers would heat the water, producing steam, which made the nodules burst, thus releasing the oil into the water. Through a primitive system of gravity separation, the oil would flow into a collection vat while the water would be released to the ground. The net result would be pure, unadulterated tea tree oil.

The diagram below shows how tea tree oil was extracted before the introduction of modern techniques.

*Choose **ONE or TWO words** from the passage for each answer.*



IELTS Reading Tasks (Example 9) **Flowchart completion**

▶ **Nurturing talent within the family**

What do we mean by being 'talented' or 'gifted'? The most obvious way is to look at the work someone does and if they are capable of significant success, label them as talented. The purely quantitative route - 'percentage definition' - looks not at individuals, but at simple percentages, such as the top five per cent of the population, and labels them - by definition - as gifted. This definition has fallen from favour, eclipsed by the advent of IQ tests, favoured by luminaries such as Professor Hans Eysenck, where a series of written or verbal tests of general intelligence leads to a score of intelligence.

The IQ test has been eclipsed in turn. Most people studying intelligence and creativity in the new millennium now prefer a broader definition, using a multifaceted approach where talents in many areas are recognised rather than purely concentrating on academic achievement. If we are therefore assuming that talented, creative or gifted individuals may need to be assessed across a range of abilities, does this mean intelligence can run in families as a genetic or inherited tendency? Mental dysfunction - such as schizophrenia - can, so is an efficient mental capacity passed on from parent to child?

Complete the notes, which show how the approaches to defining 'talent'have changed.

*Choose **ONE or TWO WORDS** from the passage for each answer.*

'percentage definition' ➡ ...1... ➡ ...2... ➡

IELTS Reading Tasks (Example 10) **Flowchart completion**

▶ **Ocean Acidification**

The sea creatures most likely to be affected are those that make their shells or skeletons from calcium carbonate, including tiny plankton and huge corals. Their shells and skeletons do not dissolve only because the upper layers of the oceans are supersaturated with calcium carbonate. Acidification reduces carbonate ion concentrations, making it harder for organisms to build their shells or skeletons. When the water drops below the saturation point, these structures will start to dissolve. Calcium carbonate comes in two different forms, aragonite and calcite, aragonite being more soluble. So organisms with aragonite structures, such as corals, will be hardest hit.

So far the picture looks relentlessly gloomy, but could there actually be some positive results from adding so much CO2 to the seas? One intriguing finding, says Ulf Riebesell of the Leibniz Institute of Marine Sciences in Kiel, Germany, concerns gases that influence climate. A few experiments suggest that in more acidic conditions, microbes will produce more volatile organic compounds such as dimethyl sulphide, some of which escapes to the atmosphere and causes clouds to develop. More clouds would mean cooler conditions, which could potentially slow global warming.

*Complete the flow chart below. Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

A possible benefit from increased CO2 levels in the sea

increased ocean acidification ▶ larger quantities of organic compounds made by 1 ..... ▶ transfer to 2 ..... ▶ 3 ..... are formed ▶ 4 ..... temperatures ▶ reduction in rate of 5 .....

Tips & Techniques — Table completion

Sample Task:

Questions 6-12

*Complete the table. Use **no more than TWO words** from the text above.*

Step 1 : *Initial phase*	A **6** .....is given to the advertising agency.	
Step 2 : *research*	It is necessary to produce **7** ..... of how the company is doing compared to its competitors.	Age, sex and education of the potential customers are just three of a **8** ..... that need to be considered by the company.
Step 3 : *planning*	No company wants to pay too much, so the advertising company must look for a campaign that is the most **9** ..... for their client.	People tend to buy products they are familiar with, so **10** ..... is a vital part of an advertising strategy.
Step 4 : *execution*	Some companies are fined if they don't stay **11** ..... when carrying out a project.	
Step 5 : *follow-up*	Increased sales is just one **12** ..... for a company. Employee and customer satisfaction are other important ones.	

▸ **Tip 1:** Check the instructions for the maximum number of words you can use.

▸ **Tip 2:** Before you start trying to complete the gaps, make sure you look carefully at the rows and columns in the table to see how the information is organised.

▸ **Tip 3:** The answers may or may not be close together in the text. For each question, scan the text to find it and fill in the space.

▸ **Tip 4:** The information in the passage will not necessarily be in the same order as the questions.

▸ **Tip 5:** Look at the gaps and predict the type of word required.

▸ **Tip 6:** Some of the information may already be provided to help you.
Make sure you read the whole table/ chart to get the overall meaning.

▸▸ Task approach:

- Read the statements and underline the key words.
- Try to work out what information you need.
- See if you can predict the answer or the kind of word(s) that you are looking for.
- Skim and scan the text, focusing on relevant information. Use the key words in the questions to locate the answers in the passage. Look out for synonyms and parallel expressions. Read carefully once you find the search areas.
- Make certain your answers make sense both logically and grammatically.

IELTS Reading Tasks (Example 1) — Table completion

▶ **Recruitment trends across the Channel 28-30**

Employment agencies cover the lower end of the salary spectrum and tend to concentrate on functional specialisations — secretarial, accountancy, computer technicians, sales, etc., but will recruit up to junior management level. Generally, potential recruits register with the agency which then tries to place that person with one of its clients. Executive selection consultancies undertake a specific recruitment on behalf of a client, through advertisement. The consultancy will analyse the position that has to be filled, draw up an advertisement and advise the client of the most appropriate medium in which to advertise. Usually, the consultancy will handle the response and select a short list of the most suitable candidates. Such consultancies mainly operate by functional specialisations and at junior to middle management levels. Executive search, or 'head-hunting', can be described as the direct approach to a potential candidate with a view to recruiting that person on behalf of a client. Executive search is used for middle and senior management appointments.

Complete the table by finding up to three words from the passage to fill each numbered box.

Type of recruitment	Category of specialisation	Level of management	Method of recruitment
employment agency	**1**	up to junior management	register
executive selection	functional	**2**	**3** .....
executive search	all types	middle senior	**4**.....

IELTS Reading Tasks (Example 2) — Table completion

▶ **Musical instruments reclassified**

The name chordophones is used fur instruments with strings that produce a sound when caused to vibrate. Further classification is based on body shape and on how vibrations are induced. There are five basic types: bows, lyres, harps, lutes and zithers. The simples: musical bows have a single string attached to each end of a flexible stick; others have resonators to amplify the sound. Lyres, common in ancient times, have a four-sided frame consisting of a soundbox, two arms and a crossbar. The plucked strings run from the front of the soundbox to the crossbar. Harps are basically triangular in shape, with strings attached to a soundbox and me instruments 'neck'.

Classified as lures are all instruments with strings that run from the base of a resonating 'belly' up and along the full length of an attached neck. This sub-group is further divided into plucked lutes (round-or flat-- or flat-backed), and bowed lures (including folk fiddles and violins). The fifth type, zithers, have swings running the entire length of the body and are subdivided into simple zithers (stick, raft, tube or trough-shaped), long zithers (from the Far East), plucked zithers (such as the psaltery and harpsichord), and struck zithers (including the dulcimer and piano).

*Use **NO MORE THAN THREE WORDS** from the passage for each space, complete the chart below.*

Types of chordophones i.e. **1**	**Description**
2.....	Single strings attached to a single stick
Harps	**3**..... attached to a soundbox and the instrument's neck
4.....	with strings from the base of a resonating belly and along the length of an attached neck.
5.....	**6**..... with a soundbox, two arms and a crossbar
Zithers	are **7**.....into simple, long, plucked and **8**.....

IELTS Reading Tasks (Example 3) — Table completion

▶ **The Birth of Scientific English**

England was one of the first countries where scientists adopted and publicised Copernican ideas with enthusiasm. Some of these scholars, including two with interests in language -John Wall's and John Wilkins - helped Found the Royal Society in 1660 in order to promote empirical scientific research. Across Europe similar academies and societies arose, creating new national traditions of science. In the initial stages of the scientific revolution, most publications in the national languages were popular works, encyclopaedias, educational textbooks and translations. Original science was not done in English until the second half of the 17th century. For example, Newton published his mathematical treatise, known as the Principia, in Latin, but published his later work on the properties of light - Opticks - in English.

There were several reasons why original science continued to be written in Latin. The first was simply a matter of audience. Latin was suitable for an international audience of scholars, whereas English reached a socially wider, but more local, audience. Hence, popular science was written in English.

*Complete the table. Choose **NO MORE THAN TWO WORDS** from the passage for each answer.*

Science written in the first half of the 17th century

Language used	Latin	English
Type of science	Original	**1** .....
Examples	**2**	Encyclopaedias
Target audience	International scholars	**3** ..... , but socially

IELTS Reading Tasks (Example 4) — Table completion

▶ **The most serious threats facing the environment in the 21st century**

A significant element contributing to making all forms of pollution more dangerous is the presence of heavy metals such as lead and mercury that can poison our air, earth and water. We have no way of knowing what the long-term effects of many of these chemicals may be, as they are new. Some studies are suggesting that many compounds could be endocrine disruptors - chemicals that have a disruptive effect on the hormone balance in our body. The introduction of unleaded petrol made a significant difference, but this victory is over- shadowed by the consequences of the rapid industrial development taking place around the world. The number of people at risk of poisoning themselves by drinking polluted water, eating polluted food and using everyday objects that contain hazardous chemicals has increased alarmingly.

Chemicals released into the air can cause both the smog that clouds our cities and the acid rain that can devastate woodland. These and other forms of air pollution are known to contribute to chronic respiratory illnesses, which have dramatically increased over the past few decades, leading to millions of premature deaths every year. While it is true that the introduction of strict air-quality controls on factories and emissions from cars and other road-using vehicles has reduced the level of air pollution in most industrialized nations, a great deal of work remains to be done.

The most harmful ultraviolet radiation from the Sun is filtered out by the ozone layer before it reaches the surface of the Earth. Nevertheless, we are witnessing increased rates of skin cancer and damage to plants and ecosystems as a result of the dangerous depletion of the ozone layer. Actually, there are reasons to claim this as one of our few environmental success stories: the topic received a great deal of attention in the 1970s and '80s, when a giant 'hole' in the ozone layer was discovered above Antarctica. Luckily, people were persuaded to act quickly to scale back the production and use of CFCs and other substances proved to be responsible for the hole, so although not solved, research indicates positive signs of gradual improvement.

*Complete the table below. Choose **NO MORE THAN THREE WORDS** from the text for each answer.*

	Consequence	**Possible health problems**	**How the situation has developed**
Ozone layer depletion	Ultraviolet radiation no longer **1**.....	**2**	There has been a **3** ..... in the situation
Air pollution	Creates city smog and **4**.....	**5**	Pollution levels reduced following controls imposed on **6** .....and exhaust fumes from vehicles
Chemical and toxins	All forms of pollution are made more dangerous	Can alter body's **7**	Millions still at risk, but use of **8**.....has been a positive contribution

IELTS Reading Tasks (Example 5) — Table completion

▶ **Right and left-handedness in humans**

Why do humans, virtually alone among all animal species, display a distinct left or right-handedness? Not even our closest relatives among the apes possess such decided lateral asymmetry, as psychologists call it. Yet about 90 per cent of every human population that has ever lived appears to have been right-handed. Professor Bryan Turner at Deakin University has studied the research literature on left-handedness and found that handedness goes with sidedness. So nine out of ten people are right-handed and eight are right-footed. He noted that this distinctive asymmetry in the human population is itself systematic. "Humans think in categories: black and white, up and down, left and right. It's a system of signs that enables us to categorise phenomena that are essentially ambiguous.'

Research has shown that there is a genetic or inherited element to handedness. But while left-handedness tends to run in families, neither left nor right handers will automatically produce off-spring with the same handedness; in fact about 6 percent of children with two right-handed parents will be left-handed. However, among two left-handed parents, perhaps 40 percent of the children will also be left-handed. With one right and one left-handed parent, 15 to 20 per cent of the offspring will be left-handed. Even among identical twins who have exactly the same genes, one in six pairs will differ in their handedness.

Complete the table below.

	Percentage of children left-handed
One parent left-handed One parent right-handed	..... **1** .....
Both parents left-handed	..... **2** .....
Both parents right-handed	..... **3** .....