TEST OF ACADEMIC REASONING FOR ADMISSIONS (TARA)

Question Guide

For assessment in October 2025 and January 2026

June 2025

Introduction

In this guide we will give you an overview of the TARA, the Test of Academic Reasoning for Admissions, with examples of the types of questions it contains.

What is the structure of the TARA?

The TARA consists of three online modules which you will take in order. Each module is separately timed; you cannot return to a module once you have moved on to the next.

Calculators and dictionaries are **NOT** permitted in any part of the TARA.

The three modules of the TARA are:

Critical Thinking

This module is designed to test your ability to think critically. It comprises 22 multiple choice questions, each with five options, and you have 40 minutes to answer the module.

There is only **one** correct answer to each question.

Marks are not deducted for incorrect answers, so candidates should attempt **all** questions.

Problem solving

This module is designed to test your ability to solve novel problems. For this module you are expected to know some basic mathematics. The details of what you are expected to know are set out at the end of this document in an appendix.

This module comprises 22 multiple choice questions, each with five options, and you have 40 minutes to answer the module.

There is only **one** correct answer to each question.

Marks are not deducted for incorrect answers, so candidates should attempt **all** questions.

Writing task

The Writing Task contains a choice of three questions, of which candidates must answer only **ONE**.
Do **NOT** attempt to answer all three writing task questions.

The questions will typically present a short statement, and candidates will be asked to explain what is meant by the statement, give a reasoned argument against the statement, and discuss the extent to which they agree with the statement.

The time allowance for the Writing Task is 40 minutes, and the answer should not exceed **750 words**.

Critical Thinking

Critical Thinking in the context of the TARA involves the evaluation of arguments. In an argument, **reasons** are put forward as grounds for a **conclusion**. The argument is a valid argument provided its conclusion follows logically from the reasons. That is to say, if you accept the reasons, you must accept the conclusion. **For the purposes of this test, you should assume any reasons given in an argument are true.**

Here is an example of a simple argument:

> Helen promised she would attend the meeting or send a substitute. We know she can't attend the meeting. So we are expecting a substitute.

The structure of this argument is as follows:

Reasons: Helen promised she would attend the meeting or send a substitute. We know she can't attend the meeting.

Conclusion: So we are expecting a substitute.

In this case, the conclusion appears at the end of the argument, and is introduced by the word 'so'. Sometimes a conclusion may be introduced by words such as 'therefore', 'thus', 'it follows that'. However, sometimes a conclusion might not contain any such word. It is also important to note that a conclusion might appear at the beginning of, or in the middle of, an argument, rather than at the end. For example, the above argument could have been written in this way:

> We know Helen cannot attend the meeting. We are expecting a substitute. Helen promised she would attend the meeting or send a substitute.

or in this way:

> We are expecting a substitute for Helen. We know she cannot attend the meeting, and she promised she would attend or send a substitute.

In both these cases, 'We are expecting a substitute (for Helen)' is the conclusion, because it is the statement which **follows from**, or **is supported by**, the rest of the passage.

Some arguments may omit a crucial stage in the reasoning – an **assumption** which must be made in order for the conclusion to follow. Here is an example:

> She doesn't stand much of a chance. The polar bear is right behind her.

In this argument it is not explicitly stated that polar bears are dangerous, but the conclusion that 'she doesn't stand much of a chance' depends upon the belief that polar bears are dangerous. This belief is taken for granted, or assumed.

In summary, the features of arguments are:

> **reason(s)**
> **conclusion(s)** (which may or may not be introduced by words such as 'so', 'therefore')
> **assumption(s)** i.e. crucial parts of the argument which have not been stated.

Arguments can be much more complex in structure than the examples given so far, and they can be lengthy. But whatever their length and complexity, there are certain skills involved in understanding and evaluating arguments. These are: Identifying the Main Conclusion, Drawing a Conclusion, Identifying an Assumption, Assessing the Impact of Additional Evidence, Detecting Reasoning Errors, Matching Arguments, and Applying Principles.

In the TARA there are seven types of Critical Thinking question based on these skills. Below we explain the features of each type of question, then give an example, and explain how you could work out the correct answer.

Example 1: Identifying the Main Conclusion

In this type of question, you have to judge which one of the options A to E best expresses the main conclusion of the argument. So, the first important step is to read the passage carefully and pick out the sentence which is the conclusion. Remember that the conclusion can appear anywhere within an argument – not necessarily at the end. Remember also that what you are looking for is the statement which follows from, or is supported by, the rest of the passage.

The Royal Society, Britain's leading science organisation, has millions of pounds invested in fossil fuel companies. At the same time, it has published many doom-laden reports on the impact of human activity on the environment, and many of its members are devoted to researching climate change. It is hypocritical for the Society's money to be invested in companies whose operations are in conflict with many of its publications and the careers of its members. The Society should abandon its investments in fossil fuels. This would be following the example of other organisations such as the National Theatre and the Royal Shakespeare Company.

Which one of the following best expresses the main conclusion of the above argument?

A The Royal Society has millions of pounds invested in fossil fuel companies.

B The operations of fossil fuel companies are in conflict with the aims of the Royal Society.

C It is hypocritical for the Royal Society's money to be invested in fossil fuel companies.

D The Royal Society should abandon its investments in fossil fuels.

E The Royal Society should follow the example of the National Theatre and the Royal Shakespeare Company.

Answer and explanation

The answer is **D**.

What does this argument seem to be trying to get us to accept? It seems to be trying to persuade us that the Royal Society should abandon its investments in fossil fuels. We need to see whether the rest of the passage gives us reason to believe this. The following reasons are given:

1. The Royal Society has millions of pounds invested in fossil fuels.
2. It has published many reports on the negative impact of human activity on the environment.
3. Many of its members are devoted to researching climate change.

The passage reaches the intermediate conclusion that this is hypocritical, and goes on to reach the main conclusion that the Society should therefore abandon its investments in fossil fuels. The main conclusion is further supported by the example of other organisations. In situations like this, it is important to note that the intermediate conclusion supports the main conclusion (and not *vice versa*).

A is not the main conclusion, but is one of the reasons for the main conclusion.

B is not the main conclusion, but a reason given to support the intermediate conclusion.

C is not the main conclusion, but is an intermediate conclusion (as explained above).

D is the statement that best expresses the main conclusion.

E is not the main conclusion, but is a further example given in support of the main conclusion.

Example 2: Drawing a Conclusion

In this type of question, you are asked which of the options can be drawn as a conclusion from the passage. You need to consider each of the statements A to E, and to think about whether the information in the passage gives you good reasons to accept the statement. Note that this differs from the Identifying the Main Conclusion question type (see previous page) in that a conclusion does **not** appear in the passage.

Since the late 1990s wolves have been seen in the Haute-France region of the Alps. This places them once again in conflict with the shepherds who farm this region. Due to the protected status of the European wolf, French farmers are awarded a compensation payment for the loss of any of their sheep to a wolf. This payment amounts to considerably more than the livestock value of the animal. In addition to this, it is very difficult to distinguish between evidence of a wolf attack and dog attack. France has a population of 8 million dogs; 8 000 of these are estimated to be wild compared to only 200 wolves.

Which one of the following is a conclusion that can be drawn from the above passage?

A The problem of wolves attacking sheep in the French Alps has been exaggerated.

B Any claim that a sheep has been attacked by a wolf should be treated with caution.

C The protected status of the European wolf is unpopular in the French farming community.

D The wolf's reputation for killing sheep is undeserved.

E The compensation scheme should be discontinued.

Answer and explanation

The answer is **B**.

The passage presents a series of reasons, mostly in the form of factual statements, none of which resemble a conclusion or judgement that requires further support. The task in 'drawing a conclusion' questions is to infer or deduce what can logically follow from the information provided.

In these questions, the key to getting the right answer is being careful. You must ensure that you do not conclude more than is supported by the passage. You also need to make sure that the conclusion you draw is consistent with, and supported by, the passage as a whole – not just a particular claim it makes.

Here, the information tells us: (1) that wolves are making a return to a region of France; (2) that farmers are rewarded compensation for sheep attacked by wolves; (3) that this is considerable; (4) that it is very difficult to distinguish between wolf and dog attacks; and (5) that there are many more wild dogs than wolves.

Putting these points together makes a case for thinking that farmers have a clear motive to make false claims about wolf attacks. After all, they are likely to be rewarded for such false claims and are unlikely to get found out as being dishonest. Indeed, because there is such a greater number of wild dogs and it is difficult to distinguish between wolf and dog attacks, there is a strong likelihood that sheep losses attributed to wolves – purposely misleadingly or otherwise – are in fact caused by dogs.

From this line of reasoning, it follows that any claim that a sheep has been attacked by a wolf in the Haute-France region should be treated with caution. Therefore, B is a conclusion that can be drawn from the passage. The other options (A, C, D and E) go beyond what is supported by the information presented.

Example 3: Identifying an Assumption

An assumption is something which is not stated in the argument, but which is taken for granted in order to draw the conclusion. So, to answer these questions, you first need to identify the conclusion of the argument. Ask yourself what is the main point that the argument tries to get you to accept; then look for the reasoning it gives to support this conclusion, and think about any important point which is not actually stated in the reasoning.

The definition of a faith school is a school that provides a general education within a framework of a specific religious belief. According to information obtained through a Freedom of Information request by the National Secular Society, which campaigns for the separation of religion and the state, 21% of parents in England who put a non-faith secondary school as their first choice were assigned a faith school, the corresponding figure for primary schools being 14%. These figures show that many children are having religion imposed upon them against their parents' wishes. They add to a growing weight of evidence showing that faith schools restrict choice for many parents, adding uncertainty and confusion to an already complex admissions system.

Which one of the following is an underlying assumption of the above argument?

A The number of faith schools is roughly equal to the number of non-faith schools.

B Many of the parents whose first choice was a non-faith school did not want their children to attend a faith school.

C There are significantly more secondary faith schools than primary faith schools.

D People cannot make informed decisions about religion until adulthood.

E In most cases parents consult their children about which schools to put down as their preference.

Answer and explanation

The answer is **B**.

The argument uses the reason that a percentage of parents who put a non-faith secondary school as their first choice were assigned a faith school, to reach the conclusion that many children are having religion imposed upon them against their parents' wishes. This conclusion follows only on the assumption that those parents who chose a non-faith school did so because it was non-faith. If this was not the reason, then it would not be justified to conclude that religion was being imposed against the parents' wishes.

A This may or may not be the case, but it is not necessary to assume this in order to reach the conclusion.

B This is an assumption that has been made when reaching the conclusion.

C Although this statement might appear to be supported by the percentages stated in the passage, this does not have to be assumed in order to reach the conclusion.

D This does not have to be assumed, as the conclusion relates to decisions made by parents, not those of their children.

E This does not have to be assumed, as the conclusion relates to the wishes of the parents, not those of the children.

Example 4: Assessing the Impact of Additional Evidence

In this type of question, you are typically asked to identify, from five choices A to E, what might strengthen or weaken an argument. In the example below, you are asked to consider what would strengthen the argument. To answer this type of question, you first need to be clear about what the argument is trying to establish; then you need to consider what effect each of the possible answers would have on the argument.

Next time you feel the flu coming on, you should think twice before reaching for painkillers because they could do more harm than good by increasing the transmission of flu. Obviously, painkillers can make you feel better by reducing muscle pains and headaches, but they also lower fever. Fever is thought to be an antiviral weapon, because many viruses find it hard to replicate at temperatures higher than the normal human body temperature. Some studies have shown that lowering fever can prolong viral infections and increase the amount of the virus that can be passed on to others.

Which one of the following, if true, strengthens the above argument?

A Overuse of painkillers can reduce their effectiveness in curing headaches.

B Taking painkillers increases the likelihood that flu sufferers will return to work while still infectious.

C The studies of the effect of lowering fever were carried out on animals, not humans.

D The most effective defence against flu is an annual anti-flu injection.

E People are more likely to take an accidental overdose of painkillers when they have a virus.

Answer and explanation

The answer is **B**.

The conclusion of this argument is that you should think twice before taking painkillers to treat flu symptoms, because they can increase the transmission of the disease. If **B** is true, this strengthens the argument because it gives an additional reason why the use of painkillers might further increase the transmission of flu.

A does not strengthen the argument. Although this gives a reason why you should not overuse painkillers, this does not strengthen the argument in relation to their impact on the transmission of flu.

B strengthens the argument because it gives further support to the reason on which the conclusion depends, i.e. that taking painkillers can lead to increased transmission of flu.

C does not strengthen the argument. If the evidence used to reach the conclusion was based on studies of animals and not humans, this evidence and the resulting argument would be weakened, not strengthened.

D does not strengthen the argument. Although this gives information about how flu might be avoided, which might seem relevant, the argument and its conclusion relate to the situation where a person already has symptoms of the illness.

E does not strengthen the argument. Although this gives a further reason for being cautious in the use of painkillers, it does not strengthen the argument in relation to their impact on the transmission of flu.

Example 5: Detecting Reasoning Errors

In this type of question, you are asked to identify the flaw in the argument, which means that you must explain why the conclusion does **not** follow from the reasons that are given. To do this, you need to be clear about what the conclusion is, and what reasons are meant to support it. Ask yourself what the main point is that the argument is trying to establish, and how it tries to establish it.

Two hundred years ago the average woman in a rich nation could expect to give birth to 8.5 children and to die around her fifty-fifth birthday. By 1920 the birth rate had halved to 4.2 children and women's life expectancy had risen to almost seventy years. We can conclude, therefore, that the heavy biological toll of childbirth on women means that the more times they give birth, the faster they age and the more likely they are to die early.

Which one of the following best expresses the flaw in the above argument?

A It assumes that, historically, women were ignorant of the toll childbirth takes.

B It draws conclusions which relate only to women in rich nations.

C It fails to note falling infant mortality rates in the given time period.

D It implies that all women who have multiple pregnancies will die early.

E It fails to consider other factors that might have improved women's life expectancy.

Answer and explanation

The answer is **E**.

The argument clearly states its conclusion that the more times women give birth, the faster they age and the more likely they are to die early. The reasoning offered in support of this is:

1. Two hundred years ago the average woman in a rich nation could expect to give birth to 8.5 children and to die around her fifty-fifth birthday.
2. By 1920 the birth rate had halved to 4.2 children and women's life expectancy had risen to almost seventy years.

In reaching its conclusion, the argument makes a simple causal connection between the evidence of falling birth rates and increased life expectancy. As **E** suggests, there may be other factors that contributed to the rise in life expectancy (such as higher income levels, better diet, lower risk of fatal infections). The evidence presented is not sufficient to conclude that lower birth rates have caused improved life expectancy.

A is not assumed. Women may have known about the toll of childbirth but either been unable to prevent pregnancy or risked childbirth for economic reasons.

B is not the flaw, as it is perfectly valid for the argument to deal only with women in rich countries.

C is not the flaw. It is likely that falling infant mortality rates played some part in affecting birth rates, but infant mortality does not in itself directly affect a mother's health or life expectancy.

D is not the flaw. The argument draws on statistical information and describes averages; it does not suggest that the relationship exists at the level of the individual.

E is the flaw, as it explains that, in reaching the conclusion, the argument makes a simple causal connection between birth rates and life expectancy, and fails to consider other factors.

Example 6: Matching Arguments

This type of question asks you to identify similarity between arguments, but not the sort of similarity where two arguments are about the same topic. The similarity you are looking for is in the **structure** or the **pattern** of the argument. Note that it is the relationship between the statements in the passage that is important, not necessarily the order in which they occur. The statements in the correct answer may be deliberately rearranged to make the similarity with the passage less obvious. Sometimes, the argument in the passage will be invalid, but you should ignore this; you should ignore this because this type of question is solely about the structure of the argument, and not about whether the argument is valid or not. The example below contains an argument that is not valid.

Any hospital which is serious about reducing its deficit and bringing its budget under control will examine carefully the land and buildings it owns, in order to see if any of them can be sold to raise money. Our local hospital is evidently determined to keep its finances under control, because it has recently cancelled a planned extension to the visitors' car park and sold the ground for housing.

Which one of the following most closely parallels the reasoning used in the above argument?

A Any student who wants to gain a place at a top university should develop a special interest which will impress admissions tutors. Emily aims to secure a place at a top university. So she needs to develop an impressive special interest.

B Any parent who wishes to bring up children to be truthful should never lie to them. Natalie cannot want her children to grow up to be truthful, because she often deliberately tells them things which are not true.

C Any school which persistently gets poor examination results will be put into 'special measures' by the Government. Our local secondary school is sure to be put into special measures because its exam results have been dreadful for the last 5 years.

D Any worker at this company who is persistently late for work will be dismissed. Joe always arrives at work on time. So he is in no danger of losing his job.

E Anyone who wishes to study English at university needs to learn to read quickly. Vanessa has developed impressive speed-reading skills. So she must be planning to study English at university.

Answer and explanation

The answer is **E**.

As a first step to finding the structure in the argument, look at the passage to see if there are repeated statements which you could represent with a letter (e.g. X or Y). It is slightly difficult to do that in this argument, because the repeated statements are worded in a slightly different form each time. But we can see that there are two important ideas which are mentioned twice, and we can label these X and Y:

Being serious about controlling finances. (X)
Selling land or buildings. (Y)

If we rearrange and simplify the wording of the argument, we obtain:
If a hospital is serious about controlling its finances (X), then it will sell land or buildings (Y). This hospital is selling land (Y), therefore it is serious about controlling its finances (X).

This can be summarised as the following (invalid) structure:
If X, then Y; Y, therefore X.

We now have to look for the argument which has this same structure.

A is not correct, because it has the (valid) structure:
If X, then Y; X, therefore Y.
X = wanting a place at a top university
Y = developing a special interest

B is not correct because it has the (valid) structure:
If X, then Y; not Y, therefore not X.
X = bringing up children to be truthful
Y = not telling them lies

C is not correct, because, like **A**, it has the (valid) structure:
If X, then Y; X, therefore Y.
X = poor examination results
Y = being put into special measures

D is not correct, because it has the (invalid) structure:
If X, then Y; not X, therefore not Y.
X = being persistently late
Y = being dismissed

E is the correct answer. It has the same (invalid) structure as the passage:
If X, then Y; Y, therefore X.
X = wishing to study English,
Y = learning to read quickly.

Example 7: Applying Principles

When you are asked which statement illustrates the principle underlying the passage, you must first identify this principle. A principle is a general recommendation, which, in the passage, will be applied to just one particular case, but which could also be applied to other cases. For example, someone might use the principle 'Killing is wrong' in order to argue for pacifism, i.e. for refusing to go to war. If we are to accept the principle that killing is wrong, then it also follows that capital punishment is wrong, and even that killing in self-defence is wrong. In order to answer this type of question, you first need to understand the argument, so look for the conclusion, and for the reasons, in the usual way. This should enable you to see what general principle the argument relies on in order to draw its conclusion. You then need to consider each possible answer to see which one follows from the general principle you have identified.

Many people knowingly buy fake brands because they are substantially cheaper than the genuine article would be. They may try to justify their behaviour, on the grounds that manufacturers and retailers are already rich enough because they charge customers excessively high prices while paying extremely low wages to their employees. As true as these claims may be, it doesn't excuse the shopper for encouraging piracy.

Which one of the following illustrates the principle used in the above argument?

A There is no justification for hotels charging inflated prices when demand for rooms is high.

B Jorge was wrong to spread lies about his ex-girlfriend even though she had cheated on him.

C Shops should not set high prices on articles just so that they can reduce them in the sales.

D No one should ever post a message on social media that they would not want posted about themselves.

E Footballers are entitled to criticise a referee for a bad decision only if it has advantaged the other side.

Answer and explanation

The answer is **B**.

The principle underlying in the passage is that two wrongs do not make a right; namely that the alleged wrongs of the manufacturers and retailers do not excuse actions of the shopper who knowingly buy fakes products.

A simply objects to profiteering. There is not obvious more general principle being applied.

B adopts the same principle as the passage, that two wrongs do not make a right. The alleged wrongs of Jorge's girlfriend do not excuse Jorge's lies.

C challenges the specific practice of artificially raising prices to make sales more attractive.

D exemplifies the principle: do to others only what you would like done to you.

E is contrary to the spirit of the passage. Arguably it does not operate a principle at all.

Problem Solving

There are three kinds of Problem Solving question in the TARA, each assessing a key aspect of insight into unfamiliar problems. The three kinds are Relevant Selection, Finding Procedures, and Identifying Similarity. Although most questions fall into one category, some questions fit into one or more of the categories.

The following examples show the three kinds of Problem Solving question you will find in the TARA.

Example 1: Relevant Selection

In real-world problems, it is unusual to have only the information that is required to reach the solution. Instead, there will usually be additional information, much of which is unimportant. The first step in solving the problem is to identify the information that is relevant. Questions testing Relevant Selection present you with information which is not important, perhaps redundant, and possibly distracting. The task is to select and apply only that information which is necessary and helpful in finding a solution.

Jasper's school bag can carry up to 5 books. He stores the rest of his school books in his locker. He can visit his locker before school, at break time, and at lunch time to change the books he carries in his bag.

The tables below show his timetable and the number of books needed for each of his lessons. Each subject has completely different books.

Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
mathematics	music	mathematics	music	art
English	science	history	English	geography
break time				
history	geography	science	mathematics	science
lunch time				
music	English	Spanish	Chinese	mathematics
science	mathematics	English	science	English

subject	*number of books needed*
mathematics	3
English	1
science	2
music	1
history	2
geography	3
art	1
Spanish	2
Chinese	2

On which day does Jasper not need to visit his locker at break time?

A Monday

B Tuesday

C Wednesday

D Thursday

E Friday

Answer and explanation

The answer is **D**.

For Jasper not to need to visit his locker at break time, he must be able to carry in his bag all the books he needs before lunch time. His bag can carry a maximum of 5 books, so you need to use the information in the tables to determine the day on which the lessons before lunch require a total of 5 books or fewer.

The numbers of books needed before lunch on each day are:

Monday: mathematics (3), English (1). history (2). Total = 6

Tuesday: music (1), science (2), geography (3). Total = 6

Wednesday: mathematics (3), history (2), science (2). Total = 7

Thursday: music (1), English (1), mathematics (3). Total = 5

Friday: art (1), geography (3), science (2). Total = 6

Thursday is the only day on which five or fewer books are needed before lunch time.

Example 2: Finding Procedures

Sometimes you will find that even if you are presented with, or have selected, only the relevant information, the route to the solution is not immediately clear. You then have to devise a method or procedure that you can use to generate a solution. This aspect of Problem Solving is called Finding Procedures.

The total price of a flight between two cities is made up of three parts: a basic cost, airport charges, and a booking fee. Last year, for a flight with a total price of $330, the basic cost and the airport charges were in the ratio 3 : 2 and the booking fee was $50. This year, the basic cost of a flight has been increased by 20%, the airport charges have been increased by 10% and the booking fee has been halved.

What is the total price of the same flight this year?

A $335.00

B $344.20

C $349.80

D $374.80

E $407.80

Answer and explanation

The answer is **C**.

Last year the price of the flight was $330, of which $50 was the booking fee.
That means that the basic cost an airport charges together were $330 - $50 = $280
Dividing this in the ratio 3 : 2 gives a basic cost of $168 and airport charges of $112.

This year, the basic cost has increased by 20%, so the new basic cost will be $168 × 1.2 = $201.60
The airport charge has increased by 10%, so the new airport charge will be $112 × 1.1 = $123.20
The booking fee has halved, so the new booking fee will be $50 × 0.5 = $25

This gives a total price for the same flight this year of $201.60 + $123.20 + $25 = **$349.80**

A This is not correct. It mistakenly uses $20 and $10 in the calculation instead of 20% and 10%.

B This is not correct. It mistakenly uses the ratio 2 : 3.

C This is the correct answer.

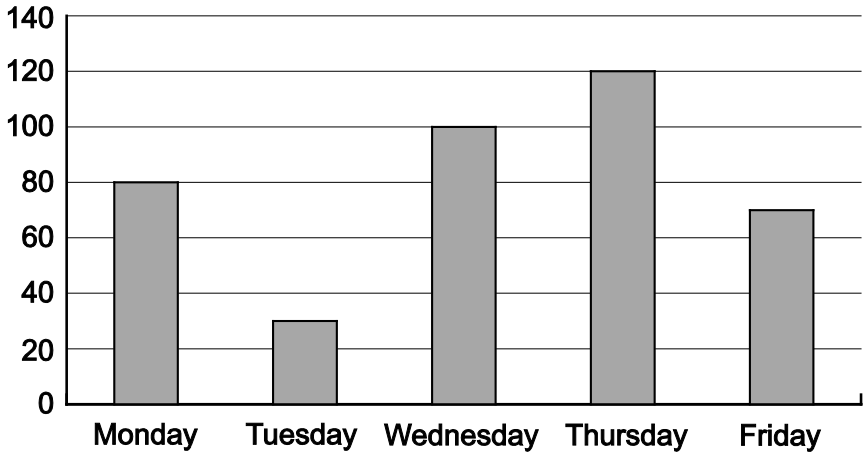
D This is not correct. It mistakenly leaves the booking fee unchanged at $50.

E This is not correct. It fails to subtract the $50 booking fee at the start of the calculation, and divides $330 in the ratio 3 : 2.

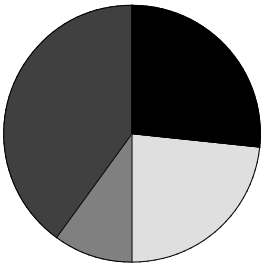
Example 3: Identifying Similarity

In this type of question you will typically be presented with information or data represented in more than one way (including e.g. charts, tables, etc.). To answer the question, you will need to understand the relationships between these and to identify any similarities or differences in the data they represent. Some questions may require you to identify reflections or rotations of simple shapes, or manipulations of 2D and 3D objects.

Terence drew the bar chart below to represent the sales from his shop on each day from Monday to Friday last week.



He also drew the following pie chart, but forgot to include one of the days.



Which day was missed out on the pie chart?

A Monday

B Tuesday

C Wednesday

D Thursday

E Friday

Answer and explanation

The answer is **C**.

Reading from the bar chart, the sales on each day are:

Monday: 80
Tuesday: 30
Wednesday: 100
Thursday: 120
Friday: 70

When initially comparing the bar chart and the pie chart, it appears likely that the smallest segment of the pie chart represents Tuesday, as the sales on Tuesday are much lower than on any of the other days.

Another key feature of the pie chart is that the two segments on the left make up half of the total area, and the two segments on the right make up the other half.

To solve this problem, you have to work out which four days, including Tuesday, can combine so that two of the days make half of the total, and the other two days make the other half.

By inspecting the sales for each day, and possibly by trial-and-error, it can be concluded that the only way that this can be achieved is if the two segments on the left are Tuesday and Thursday, and the two segments on the right are Monday and Friday. Both of these pairs of days add to give 150, with the four days together giving a total of 300.

No other combinations of daily sales will produce a pie chart that is divided in half in this way.

The day that was missed out of the pie chart is Wednesday.

Writing Task

In the Writing Task module of the TARA, you will be presented with three questions, of which you must answer only **one**. Each question will typically present a short statement and ask you to explain what you think is meant by the statement, give a reasoned argument against the statement, and discuss the extent to which you agree with the statement. The purpose of the Writing Task is to provide an opportunity for you to demonstrate that you can communicate effectively in writing. The questions are designed to be suitable for applicants to a wide range of courses, coming from a variety of educational backgrounds; detailed knowledge of the subject of the statement is not expected or required.

Democratic freedom means there should be no restriction on what may be said in public.

Explain what you think is meant by the statement.
Give a reasoned argument against the statement.
To what extent do you agree with the statement?

There is no single correct way to approach the Writing Task, but you should consider these recommendations:

General

- Ensure that all three parts of the question are clearly and fully addressed.
- Make points as precisely as possible and avoid repetition.
- Group similar points together, rather than splitting them across your answer.

Planning

- It is a good idea to plan your answer for 5 to 10 minutes before starting to write.
- In your plan, group your ideas around the three different parts of the task.
- Use your plan to ensure you express your ideas as persuasively and concisely as possible.

Engaging with the statement

- Engage closely with the wording of the statement and the question.
- Take a broad and nuanced view of any general or abstract terms.
- Avoid discussing the topic area in an unfocused or overly general way.

Arguing effectively

- Always try to see both sides of the argument.
- Use targeted, concrete examples to support your arguments.
- Avoid arguments that rest solely on examples – examples should not be overly general or given without context.

The counter-argument

- Strengthen the counter-argument by including a range of points.
- Cover different aspects of the same argument from different angles, where possible.
- Avoid the inclusion of irrelevant background information.

Expressing your view

- Make sure that your view is clearly expressed and in enough depth.
- Support your view by reference to your arguments in the rest of your answer.
- Do not simply summarise what you have already said.

APPENDIX 1:

Problem Solving - mathematical knowledge and skills needed

Number concepts

- simple fractions
- place value (for example, knowing that the '5' in '7654' indicates '50')
- ideas about percentages (for example, the idea that 1% could be thought of as '1 in every 100', and that if 20% of a cake has been eaten, then 80% of it must be left)

Numerical operations

- the four rules of number (addition, subtraction, multiplication, division)
- percentage operations (for example, if something was sold at £10, and is now advertised at '20% off', how much would the customer pay?)
- calculations in everyday contexts (complex calculations with fractions and decimals are not required)
- calculation of an average (mean)

Quantities

- time and the calendar
- money
- measures

Knowledge of the following relationships is also required:

1 km = 1000 m 1 m = 100 cm 1 cm = 10 mm 1 kg = 1000 g

Sometimes questions may use other common units of measurement (e.g. feet, tonnes, gallons), but knowledge of numerical relationships between these (e.g. 12 inches = 1 foot) is **not** required.

Space and spatial reasoning

- area (including the calculation of the area of a rectangle)
- perimeter (including calculation)
- volume (including the calculation of the volume of a box)

Tables and graphs

- extracting information from graphs and charts
- extracting information from tables