

Free Critical Thinking Test

Solutions Booklet

Instructions

This practice critical thinking test will assess your ability to make inferences and logical assumptions and to reason with supported arguments. The test is comprised of the following five sections:

1. Arguments
2. Assumptions
3. Deductions
4. Interpreting Information
5. Inferences

Read the instructions preceding each section and answer the questions. There are a total of **86 questions** in this test and you should aim to correctly answer as many questions as you can within **60 minutes**.

Try to find a time and place where you will not be interrupted during the test. **The test will begin on the next page.**

Section 1: Arguments

Instructions:

When making important decisions, it is useful to be able to distinguish between a strong argument and a weak argument. A strong argument is both important and directly related to the question. A weak argument is not directly related to the question, or is of minor importance or may be related to a trivial aspect of the question, or confuses correlation with causation (incorrectly assuming that because two things are related, they cause each other to happen).

In this section, a statement is presented to you with an agreeing or disagreeing argument below. You must regard each argument as true, regardless whether it is weak or strong, agrees or disagrees with the statement. The first and second statements will have three arguments each and the third statement will have only two arguments.

If you consider an argument to be strong, select **Strong argument**, or if you consider an argument to be weak, select **Weak argument**. Judge each question and argument individually. Try not to take into account individual opinion or general knowledge since each argument is considered to be true.

Statement One:

Should companies downsize their workforces to decrease expenses and maximise profits?

Q1

Argument One: Yes, downsizing will protect the company from bankruptcy in hard economic times.

Strong Argument

Weak Argument

Q2

Argument Two: Yes, companies have no obligation to employ more people than it can handle.

Strong Argument

Weak Argument

Q3

Argument Three: No, downsizing leads to demoralisation of the workforce and causes a drop in employee productivity.

Strong Argument

Weak Argument

Q4

Argument Four: Yes, companies which have no control over the size of their workforce will be highly vulnerable to economic climates and market changes.

Strong Argument

Weak Argument

Statement Two:

Should university-level education be free to all students?

Q5

Argument One: No, too much education can lead to over-qualification, and therefore unemployment.

Strong Argument
Weak Argument

Q6

Argument Two: Yes, having a highly qualified workforce ensures high levels of employee productivity in organisations.

Strong Argument
Weak Argument

Q7

Argument Three: No, research has shown that students that are not required to pay tuition fees tend to slack off more and learn less during their degree.

Strong Argument
Weak Argument

Statement Three:

Should employers allow all staff the option of flexi-time working hours?

Q8

Argument One: Yes, giving greater flexibility will improve their work-life balance, and therefore their productivity.

Strong Argument

Weak Argument

Q9

Argument Two: Yes, organisations that value their staff are on average more productive and show lower staff turnover.

Strong Argument

Weak Argument

Q10

Argument Three: No, flexi-time leads to employees working fewer hours. Working fewer hours will decrease an employee's exposure to the workplace, making career progression harder and leading to a less experienced workforce.

Strong Argument

Weak Argument

Statement Four:

Should governments implement a minimum wage, outlining a minimum amount an employee is to be paid per hour?

Q11

Argument One: Yes, the existence of minimum wages is a key part of a civilised society.

Strong Argument

Weak Argument

Q12

Argument Two: Yes, countries that do not have a minimum wage are often impoverished and dysfunctional.

Strong Argument

Weak Argument

Q13

Argument Three: No, minimum wage leads to under-employment by forcing companies to take on staff part-time, as they cannot afford to hire them on a full-time basis.

Strong Argument

Weak Argument

Statement Five:

Should banks and financial institutions be obligated to engage in socially-responsible investing?

Q14

Argument One: Yes, engaging in socially responsible investing leads to a happier and more fulfilled workforce compared to banks which do not engage in socially-responsible investing.

Strong Argument
Weak Argument

Q15

Argument Two: No, banks are for-profit institutions and have no obligation to social issues.

Strong Argument
Weak Argument

Q16

Argument Three: No, focusing on social responsibility detracts from the aim of making money, which is the most important endeavour for banks, and leads to a decrease in revenue and profit.

Strong Argument
Weak Argument

Q17

Argument Four: No, over-regulation in the financial sector leads to decreased opportunities and therefore lower profits.

Strong Argument
Weak Argument

Statement Six:

Should all members of the European Union join the Eurozone and adopt the euro?

Q18

Argument One: No, countries may find it difficult to adapt to a new currency.

Strong Argument

Weak Argument

Q19

Argument Two: Yes, the function of the European Union is to form a single currency union.

Strong Argument

Weak Argument

Q20

Argument Three: Yes, greater economic unity between countries improves foreign relations between those member countries, which in turn make each country stronger.

Strong Argument

Weak Argument

Q21

Argument Four: No, instability of one Eurozone country could cause the whole Eurozone to become unstable, disrupting the economies of all countries that use the euro.

Strong Argument

Weak Argument

Statement Seven:

Should governments be engaging in space exploration research?

Q22

Argument One: No, the money spend on these programmes could be used to increase funding for education and healthcare, which would lead to increasing the quality of life for a country's people.

Strong Argument
Weak Argument

Q23

Argument Two: No, countries have collectively spent trillions of dollars on space exploration research already.

Strong Argument
Weak Argument

Q24

Argument Three: Yes, space exploration has led to numerous discoveries and ushered in the space age.

Strong Argument
Weak Argument

Q25

Argument Four: Yes, the findings of these space exploration research and development programmes have been successfully applied to industry, boosting the economies of the host country.

Strong Argument
Weak Argument

Section 2: Assumptions

Instructions:

An assumption is something which is presumed or taken for granted. When a person says, “I will see you tomorrow”, it is taken for granted that they will be around tomorrow, and that they will not have last-minute plans which prevent them from seeing you tomorrow.

In this section, you will be provided with a number of statements. Each statement will be followed by a series of proposed assumptions. You must decide which assumptions are logically justified based on the evidence in the statement. If you think that the assumption is taken for granted in the statement, and is therefore logically justified, select **Assumption made**. If you think that the assumption is not taken for granted in the statement, and is not therefore logically justified, select **Assumption not made**. Remember to judge each question individually and base your responses on the statements provided.

Statement One:

Monarchic nations, i.e. those with royal families, differ from republic nations in several ways. An example of this difference is that citizens of monarchic nations pay more tax than citizens of republican nations.

Q26

Assumption 1: The government of monarchic nations are responsible for setting tax rates on their citizens

Assumption Made
Assumption Not Made

Q27

Assumption 2: Republican nations do not have a royal family.

Assumption Made
Assumption Not Made

Q28

Assumption 3: The only types of nation are monarchic and republican.

Assumption Made
Assumption Not Made

Q29

Assumption 4: A monarchic nation cannot be a republican nation.

Assumption Made
Assumption Not Made

Statement Two:

In 2008, the President of the USA promised to prevent the country entering economic depression, but he failed because at the beginning of 2012, over 12 million USA citizens were unemployed.

Q30

Assumption 1: Unemployment is an indicator of economic depression.

Assumption Made
Assumption Not Made

Q31

Assumption 2: The number of USA citizens out of work ought to be less than 12 million.

Assumption Made
Assumption Not Made

Q32

Assumption 3: Presidents should stick to their promises.

Assumption Made
Assumption Not Made

Statement Three:

Chilean students were right in 2012 to stage protests demanding that university education in Chile should be made free.

Q33

Assumption 1: Some Universities outside of Chile are free.

Assumption Made
Assumption Not Made

Q34

Assumption 2: Staging protests will influence the costs of Chilean university education.

Assumption Made
Assumption Not Made

Q35

Assumption 3: Chilean students cannot afford to pay fees for university education.

Assumption Made
Assumption Not Made

Q36

Assumption 4: Chilean students want to attend university.

Assumption Made
Assumption Not Made

Statement Four:

Charities don't have to charge VAT to customers, which means charity bookshops can charge lower prices than those charged by second-hand bookshops which are not registered as a charity.

Q37

Assumption 1: Charities pay less tax than non-charities

Assumption Made
Assumption Not Made

Q38

Assumption 2: Customers prefer to pay lower prices.

Assumption Made
Assumption Not Made

Q39

Assumption 3: VAT increases the price customers pay for things.

Assumption Made
Assumption Not Made

Section 3: Deductions

Instructions:

In this section, a statement will be provided followed by a series of suggested conclusions. Here, you must take the statement to be true. After reading each conclusion underneath the statement, you must decide whether you think it follows from the statement provided.

If you agree that the conclusion exactly follows the statement, chose **Conclusion follows**.
However, if you do not agree that the conclusion exactly follows then chose **Conclusion does not follow**.

You must select your answer based only on the information presented; not using general knowledge. Similarly, you are advised not to let your own opinions or prejudices influence your decisions; stick to the statements and base your judgements on the facts presented.

Statement One:

In an attempt to cut expenses, an organisation disbanded its IT department and outsourced its IT function to a business process outsourcing company. In doing so, the company has managed to save 20% on its IT function expenditure.

Q40

Conclusion One: Outsourcing functions to business process outsourcing companies will cut expenses.

Conclusion Follows
Conclusion Does Not Follow

Q41

Conclusion Two: The aim of this company's outsourcing was to make the organisation more profitable.

Conclusion Follows
Conclusion Does Not Follow

Q42

Conclusion Three: The outsourced IT function has saved the organisation 1/5th on their IT function expenditure compared to the in-house IT function.

Conclusion Follows
Conclusion Does Not Follow

Statement Two:

Sarah owns a new company. New companies are more likely to fail than well-established companies. Therefore:

Q43

Conclusion One: Sarah's company will fail.

Conclusion Follows
Conclusion Does Not Follow

Q44

Conclusion Two: Sarah's company is more likely to fail than a well-established company.

Conclusion Follows
Conclusion Does Not Follow

Q45

Conclusion Three: Well-established companies are more likely to succeed than new companies.

Conclusion Follows
Conclusion Does Not Follow

Statement Three:

Statistics have shown that companies selling baked goods, such as cakes and pastries, are more likely to be successful if they are advertised as French or Belgian.
Therefore:

Q46

Conclusion One: French and Belgian products are more expensive.

Conclusion Follows
Conclusion Does Not Follow

Q47

Conclusion Two: French and Belgian baked goods must taste better.

Conclusion Follows
Conclusion Does Not Follow

Q48

Conclusion Three: It is a sound business model to advertise baked goods as “French” or “Belgian” as this is more likely to result in successful sales.

Conclusion Follows
Conclusion Does Not Follow

Statement Four:

May 2012 had the highest level of rainfall on record for the preceding fifty years.
Predictions of rainfall are rarely accurate. Therefore:

Q49

Conclusion One: It rained more than expected in May 2012.

Conclusion Follows
Conclusion Does Not Follow

Q50

Conclusion Two: The rainfall in May 2012 was greater than in May 2011.

Conclusion Follows
Conclusion Does Not Follow

Q51

Conclusion Three: May is usually dry.

Conclusion Follows
Conclusion Does Not Follow

Statement Five:

Facebook was launched on the American stock market in May 2012. However, statistics suggest that several previously high-performing companies, such as Pandora, Groupon and LinkedIn fell in value after they were launched on the American stock market.

Therefore:

Q52

Conclusion One: It is possible that Facebook will also drop in value after May 2012.

Conclusion Follows
Conclusion Does Not Follow

Q53

Conclusion Two: Social networking sites perform badly once they become publicly listed on the stock market.

Conclusion Follows
Conclusion Does Not Follow

Q54

Conclusion Three: All companies decrease in value when first launched on the American stock market.

Conclusion Follows
Conclusion Does Not Follow

Statement Six:

There are currently three problems facing the financial sector. Firstly, bankers are no longer seen as reliable or trustworthy. Secondly, executives of financial institutions are seen by the general public as being overpaid. Finally, it is difficult to regulate the financial sector. Therefore:

Q55

Conclusion One: Banks have never been trusted by the general public.

Conclusion Follows
Conclusion Does Not Follow

Q56

Conclusion Two: Reliability is no longer an issue when considering the failings of the financial sector.

Conclusion Follows
Conclusion Does Not Follow

Q57

Conclusion Three: Overpaying financial executives may contribute to problems facing the financial sector.

Conclusion Follows
Conclusion Does Not Follow

Statement Seven:

Coley is a company that produces scented candles, using only natural products.
Coley is against testing on animals and does not use pesticides in any of its products.
Therefore:

Q58

Conclusion One: The scent from Coley's candles is made from fruits and berries.

Conclusion Follows
Conclusion Does Not Follow

Q59

Conclusion Two: Coley's products are unlikely to contain man-made setting agents.

Conclusion Follows
Conclusion Does Not Follow

Q60

Conclusion Three: Coley's products are likely to be expensive.

Conclusion Follows
Conclusion Does Not Follow

Section 4: Inferences

Instructions:

An inference is a conclusion drawn from observed or supposed facts. For example, if someone presses a light switch but the light does not turn on, they might infer that the filament has burnt out. However, inferences may or may not be correct. For example, in this case, the bulb could be missing, or a fuse could be blown.

The questions in this section of the test will begin with a statement of facts that must be regarded as true. After each statement, you will be presented with possible inferences which might be drawn from facts in the statement. Analyse each inference separately and decide on its degree of truth.

For each inference, you will be provided with 5 possible answers: True, Probably True, More Information Required, Probably False, and False.

Select:

True, if you believe the inference is definitely true, i.e. it correctly follows beyond a reasonable doubt.

Probably True, if, based on the facts at hand, you think the inference is probably true; that it is more likely to be true than false, but not true beyond a reasonable doubt.

More Information Required, if you decide that there is not enough data to make a decision based on the provided facts (or lack of facts).

Probably False, if, based on the facts presented, you think the inference is probably false; i.e. it is more likely to be false than true, but there is not enough evidence to suggest that it is definitely false.

False, if you think the inference is definitely false; i.e. it must be incorrect because it misrepresents the facts provided or contradicts the facts provided in the statement.

Statement One:

Although it is agreed that China is rapidly modernising its army, there is some doubt surrounding the exact amount it is spending. The research institute 'PIPPi', submits that the annual Chinese defence spending has risen from almost \$31 billion in 2000 to over \$120 billion in 2010. This figure is almost double the official figure published by the Chinese government, who fail to include other areas such as research and development in the official figure each year. In 2010, the United States government spent around \$400 billion on military defence. Based on the current level of military growth, statistics suggest that China's defence spending could overtake America's by 2030. In addition to military spending, China's army continues to enjoy the largest number of people within the ranks of its army than any other country.

Q61

Inference 1: The official figures published by the Chinese government in relation to their military spending are thought to be misleading.

- True
- Probably True
- More Information Required
- Probably False
- False

Q62

Inference 2: It is known that the Chinese government leave areas such as 'research' and 'development' from their official figures, however, this would also suggest that other areas of spending are also omitted from their official figure for military spending.

- True
- Probably True
- More Information Required
- Probably False
- False

Q63

Inference 3: The Chinese government omits several key areas from its official spending figures, in areas such as military spending, agriculture, human rights and law.

True
Probably True
More Information Required
Probably False
False

Q64

Inference 4: If there are any anomalies between the published figures on military spending and the actual figure spent, this is merely a clerical error.

True
Probably True
More Information Required
Probably False
False

Q65

Inference 5: In 2010, the United States of America spent less on its military defence than the Chinese government.

True
Probably True
More Information Required
Probably False
False

Statement Two

Turkey is a surprising addition to the list of rapidly developing economies; with a GDP increase of 8.5% in the year 2011 alone. However, such rapid growth leaves worries regarding possible side-effects. For instance, in 2011 Turkey's rate of inflation was well above that of its peers. Secondly, there is increasing concern regarding Turkey's growing dependency on foreign capital. A large portion of the Turkish banking system is part-owned by banks within the Eurozone. As the single currency falters, such a dependency raises questions about the stability of Turkish growth.

Q66

Inference 1: There are concerns that Turkey's development is at risk of faltering in the years after 2011.

- True
- Probably True
- More Information Required
- Probably False
- False

Q67

Inference 2: As Turkish banks are part-owned by those in the Eurozone, they may suffer if the European banks face financial difficulty.

- True
- Probably True
- More Information Required
- Probably False
- False

Q68

Inference 3: The Turkish banks are part-owned by European banks as this provides greater variation to the market and extra finance to the economy.

- True
- Probably True
- More Information Required
- Probably False
- False

Q69

Inference 4: Turkish banks are part-owned by European banks as this provides greater economic links with the Eurozone, helping their ascension into the European Union.

- True
- Probably True
- More Information Required
- Probably False
- False

Q70

Inference 5: The Turkish economy was surprisingly stagnant in 2011.

- True
- Probably True
- More Information Required
- Probably False
- False

Statement Three

Some people think that prospective employees should include a photograph with their application form. Such practice has traditionally been criticised for allowing more attractive individuals to get ahead in their career over 'plain' colleagues. However, one study demonstrates that this is, in fact, untrue. Ruffle, the creator of this study, attributes his findings to the 'dumb-blonde hypothesis'- that beautiful women are thought to be unintelligent. Ruffle submits that companies would be better advised adopting the selection model employed by the Belgian public sector, where CVs are anonymous and candidate names, gender and photographs are not allowed to be included on CVs. Such a model allows the candidate to be selected on factors relevant to the role applied for.

Q71

Inference 1: The 'dumb-blonde hypothesis' says that more attractive women are less capable of being intelligent.

- True
- Probably True
- Insufficient Data
- Probably False
- False

Q72

Inference 2: The model of selecting future employees adopted by the Belgian public sector aims to reduce discrimination based on appearance and gender.

- True
- Probably True
- Insufficient Data
- Probably False
- False

Q73

Inference 3: The method of selecting future employees adopted by the Belgian public sector has helped to eliminate discrimination in the Belgian public sector.

- True
- Probably True
- Insufficient Data
- Probably False
- False

Q74

Inference 4: The method of selecting future employees adopted by the Belgian public sector has had the effect of increasing discrimination based on appearance within the Belgian public sector.

True

Probably True

Insufficient Data

Probably False

False

Section 5: Interpreting Information

Instructions:

The following questions will consist of a passage of information, followed by a series of conclusions. You are instructed to assume all information in the passage is true. The task is to judge whether or not each of the proposed conclusions logically flows beyond a reasonable doubt from the information given in the paragraph.

If you think that a conclusion follows beyond a reasonable doubt (but perhaps not exactly, or necessarily, unlike in the Deductions section), select **Conclusion follows**. If you think the conclusion does not follow beyond a reasonable doubt based on the facts given, select **Conclusion does not follow**. Do not use general knowledge when answering, only use the information provided in the passage. Remember to judge each conclusion individually.

See the example questions below with the correct answers given.

Statement One:

The Tapoloa Club is a Hawaiian-themed night club in central London. Its most popular drink is the Volcano, which emits sparks and flames. The Tapoloa Club also offers a range of cocktails in perverse containers such as pineapples and coconuts, such as the 'Coconut Express' and the 'Pineapple Pick-Up' respectively. Therefore:

Q75

Conclusion One: The 'Coconut Express' is the second most popular drink sold by the Tapoloa Club.

Conclusion Follows
Conclusion Does Not Follow

Q76

Conclusion Two: All themed clubs in London sell unusual drinks

Conclusion Follows
Conclusion Does Not Follow

Q77

Conclusion Three: The "Coconut Express" is contained in a pineapple, and the "Pineapple Pick-up" is contained in a coconut.

Conclusion Follows
Conclusion Does Not Follow

Statement Two:

The British National Library has the largest collection of publicly-owned books in the United Kingdom. Therefore:

Q78

Conclusion One: There might be a larger collection of books in the United Kingdom.

Conclusion Follows
Conclusion Does Not Follow

Q79

Conclusion Two: There might be a larger collection of publicly-owned books in the United Kingdom.

Conclusion Follows
Conclusion Does Not Follow

Q80

Conclusion Three: The British National Library is in the United Kingdom.

Conclusion Follows
Conclusion Does Not Follow

Statement Three:

People with a master's degree in business administration (MBA) earn an income on average 70% higher than people with just an undergraduate degree. MBA students from top business schools earn an income on average 50% higher than the average income of people with MBAs.

Q81

Conclusion One: If a person obtains an MBA, their income will increase.

Conclusion Follows
Conclusion Does Not Follow

Q82

Conclusion Two: If a person obtains an MBA from a top business school, their income will be higher than that of the average MBA graduate.

Conclusion Follows
Conclusion Does Not Follow

Q83

Conclusion Three: The average income of an MBA graduate from a top business school is over double that of the average income of a person holding only an undergraduate degree.

Conclusion Follows
Conclusion Does Not Follow

Statement Four:

Hannah has been a solicitor for three years. She works for a law firm in central London and has hopes of being promoted. To be promoted in Hannah's firm, employees must have at least four years' experience practising as a solicitor. Therefore:

Q84

Conclusion One: Hannah cannot be promoted because she doesn't have enough experience.

Conclusion Follows
Conclusion Does Not Follow

Q85

Conclusion Two: We cannot know whether Hannah can be promoted or not.

Conclusion Follows
Conclusion Does Not Follow

Q86

Conclusion Three: In 3 years' time, assuming that Hannah has not been promoted, she will be over qualified for her current position.

Conclusion Follows
Conclusion Does Not Follow

-- END OF CRITICAL THINKING TEST --