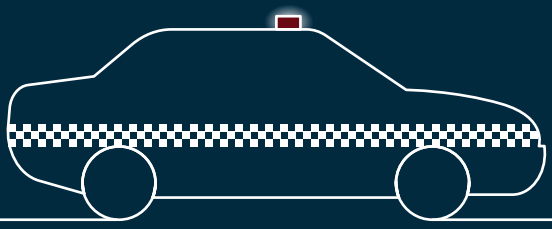
# PRACTISE NOW!



## Queensland Police Service Protective Services Officer

Entrance Assessment

# PRACTISE NOW!

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## Entrance Assessment

ACER Press

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# Contents

# Introduction

*Practise Now! Queensland Police Service Protective Services Officer Entrance Assessment* provides you with information, practical tips, explanations and practice questions that will help you to prepare for the Queensland Police Service Protective Services Officer Entrance Assessment.

The assessment requires you to demonstrate your abilities in a range of areas. Each of the chapters in this book is dedicated to building your skills in a particular area that will be assessed. Each chapter begins by identifying the specific skills you need to develop, making you aware of what you need to work on and what areas you should focus on to improve.

There is also advice on the best way to prepare for each section of the assessment and for the different question types you will encounter. This book will describe a number of these question types and will provide you with strategies for attempting them.

Each chapter has example questions, along with answers that include detailed explanations. These give you the opportunity to attempt questions similar to those you will find on the assessment, allowing you to then consider strategies you can use to improve. It is important to keep in mind that there are many ways to approach each question. You may find strategies that work better for you that differ from the explanations given.

You will also find practice questions in each chapter for you to attempt independently. These will help you further hone your skills. Where applicable, the practice questions have answers with brief explanations at the end of the book.

The example and practice questions in this book give you an indication of the types of questions that you will find on the assessment. They are not necessarily representative of the full range of questions that you will encounter. The difficulty of the example and practice questions may vary from those on the assessment.

Reading through the descriptions, tips and examples, and attempting the practice questions will provide you with strategies to attempt questions on the assessment and give you an idea about what to expect.

While this does not guarantee that you will be successful, it will be extremely valuable in your preparation for the Queensland Police Service Protective Services Officer Entrance Assessment.

## Assessment details

### What is the assessment for?

You will need to take the Queensland Police Service Protective Services Officer Entrance Assessment if you are applying to the Queensland Police Service for a role as a Protective Services Officer. Applicants must pass the assessment as part of the recruitment process.

For detailed information on the Queensland Police Service Protective Services Officer Entrance Assessment, visit the website at https://www.protectiveservicesgroup.qld.gov.au/Pages/default.aspx.

## Logging in to ACER's online Psych Testing Platform

You will be provided with a URL and unique username and password details.

When you log in, the assessments that have been allocated to you will be displayed on the home page.

You will need to complete some personal information. This information is collected for research purposes and is not made available to the organisation that has asked you to do the assessment.

Practice questions appear first. You can then move through the screens by selecting the 'next' button at the bottom of the screen.

The numbered bar that runs along the top of the screen enables you to move between questions without using the 'back/next' buttons at the bottom of the screen. The bar changes colour as answers are entered. The bar will remain clear if no answer has been added. This will give you a 'quick glance' as to which answers are outstanding.

After the practice questions, you will move to the next screen, which indicates the start of the assessment.

A timer appears in the top right of the screen.

At the end of the assessment, the screen shows the number of questions you have answered. If there is time, you have the opportunity to use the 'go back' button to check your answers.

When you have finished your assessment, you should select the 'finish' button.

During the testing session, you should not use any other programs or navigate to any other website (e.g. calculators, dictionaries, general internet access). In addition, you should only use the buttons onscreen (e.g. next, previous) and should not use the back or forward buttons on your browser.

## Minimum technical requirements

In order to use the Psych Testing Platform, the following technical requirements are required:

- minimum screen resolution: 1024 x 768
- minimum DSL or cable internet connection: 56 kbps.

Compatible computers and devices:

- PC or laptop
- Apple Mac
- iPad
- other tablet devices.

Compatible browsers:

- Google Chrome (latest version)
- Mozilla Firefox (latest version)
- Safari (version 10 or above).

### What will be on the assessment?

The assessment is divided into three sections. The table below shows you how the assessment is currently structured. The time allowances given for different sections of the assessment are current at the time of publication, but may change.

| Test section | Type of assessment | Number of questions | Time allowed |
|---|---|---|---|
| Verbal reasoning | Online multiple choice | 20 | 15 min |
| Numerical reasoning | Online numeric entry | 20 | 20 min |
| Abstract reasoning | Online multiple choice | 60 | 25 min |

### More details

The Queensland Police Service Protective Services Officer Entrance Assessment is administered by the Australian Council for Educational Research (ACER) on behalf of the Queensland Police Service. There are more details about registering, preparing and sitting the assessment at https://www.protectiveservicesgroup.qld.gov.au/Pages/default.aspx.

## Preparing for the assessment

Practice and preparation will help you to improve your general skills, develop strategies for answering questions, improve your assessment-taking skills and help you to become familiar with what to expect during the assessment.

### Preparation checklist

The following checklist will help you to prepare for the assessment:

- ☑ Visit the website https://www.protectiveservicesgroup.qld.gov.au/Pages/default.aspx.
- ☑ Familiarise yourself with the format of the assessment (see table above).
- ☑ Read descriptions of types of questions and example questions in this book.
- ☑ Complete sample questions in this book.
- ☑ Familiarise yourself with general assessment-taking strategies (see below).
- ☑ Know the practical details involved.

## Developing general abilities

Practising everyday tasks, like the ones listed in the box below, will help you to develop skills that will assist you when taking the assessment.

| | |
|---|---|
| **Literacy skills** | • Read a wide range of texts.<br>• Build your vocabulary.<br>• Practise and gain feedback on your writing.<br>• Work on your ability to listen to ideas and instructions, and speak clearly and concisely. |

| | |
|---|---|
| **Numeracy skills** | • Undertake a range of calculations using whole numbers, fractions, decimals and percentages (e.g. using money when shopping, paying bills).<br>• Work and calculate with rates (e.g. $/kg, $/m, km/hr), proportions and ratios (e.g. mixing up fertilisers, changing quantities in recipes).<br>• Work with measurements, including converting between different metric units, and calculating areas and volumes.<br>• Read maps and understand and follow directions.<br>• Work with data and statistics by finding, reading and interpreting articles or information that include tables of data and graphs or charts. |
| **Abstract reasoning skills** | • Attempt puzzles, word problems and logic questions. |

# Building a positive attitude

Part of your assessment preparation should be to develop a confident attitude. Focus on what you *do* know, not just on what you don't! You already have a great deal of knowledge to help you take the test. Focus on *positive thoughts* about the assessment—not negative ones. Say to yourself: 'Okay, this is not completely new to me—I'm familiar with questions like this. I'll take the assessment one step at a time'. This will give you the very best chance of doing well.

# Developing assessment strategies

## Managing your time

The table at the start of this introduction tells you the amount of time you have to complete each section of the assessment. You will be stopped at the end of each section. To avoid running out of time, it is a good idea to calculate how long you are able to spend on answering each question. If you spend too long answering one question, you will not have time to attempt all the questions. It is more effective to skip a question you are finding difficult and come back to it if you have time. Also when planning, make sure you allow some time at the end to check your answers.

## Reading instructions carefully

Read the instructions at the beginning of each section thoroughly so that you are clear about what you are being asked to do. As you work through the assessment, make sure that you read each question carefully and that you understand how each question needs to be answered. Do not assume that all of the questions in the test should be answered in the same way. For some questions, you may need to select more than one option to get the answer right.

This abstract reasoning question illustrates why you need to read questions carefully. The question asks you to find the middle object in the sequence.

**Example**

These objects or patterns can be rearranged to form a logical sequence. Select the middle object in the sequence (A, B, C, D or E).


Look for directions in the question that say 'choose the most correct answer', 'mark the one best answer', 'select the middle object', etc. and answer accordingly. Always look at or read all of the choices carefully and completely. There may be a better option further down the list.

## Answering multiple choice questions

A number of the questions on the Queensland Police Service Protective Services Officer Entrance Assessment are multiple choice. Please note, because you will answer multiple choice questions using a computer, the questions will be set out differently to the multiple choice questions shown in this book. Answering multiple choice questions may involve selecting the right option from a dropdown menu or clicking a checkbox next to the correct response.

Below are strategies that will help you to answer multiple choice questions.

### Strategies for answering multiple choice questions

- ☑ Eliminate answers you know are wrong straight away.
- ☑ If none of the alternatives seem close to a correct answer, re-read the question and try to work out what you have missed. There is always a correct option.
- ☑ If you can't work out the answer to a particular question, choose an option and move on. You can come back to it later.
- ☑ Try to anticipate the answer before looking at the choices. Often, your first instinct about the right answer is correct.
- ☑ Use some working paper to write down calculations, draw diagrams or write down words before you enter your answer.

## Answering numerical questions

Check whether your answer is reasonable, or at least that it makes sense within the context of the problem. For example, a person running at a speed of 198 km/h is probably not correct.

## Answering true or false questions

Some questions require you to choose whether a statement is true or false. For these types of questions, answer 'true' if the statement is correct, or 'false' if the statement is incorrect. Pay attention to the detail in the statement, because there is often more than one idea or concept in a statement. Before you select 'true', make sure that the whole statement is true, not just part of it. Keep in mind that there may be more than one statement in the question that is true.

## Attempting questions

All questions on the Queensland Police Service Protective Services Officer Entrance Assessment are worth the same. You will have a better chance of improving your score by answering more questions. You will not lose marks for a wrong answer so have a go, even if you are not certain.

## Computer-based assessment techniques

Every section of the assessment will be assessed using a computer. Make sure that you are competent with using a mouse and keyboard.

You should make sure you have some paper that you can use during the assessment. You may find it useful to draw diagrams, make calculations or write notes before answering on the computer. If you skip a question, it is a good idea to make a note so that you know which question to come back to later.

# CHAPTER 1
# Verbal reasoning

## About this section

This section of the Queensland Police Service Protective Services Officer Entrance Assessment tests your ability to think logically about ideas presented in words. You will be asked to answer questions that include solving word problems, identifying the meaning of words and recognising relationships between words.

In this section of the assessment, you will be required to answer 20 multiple choice questions in 15 minutes. Remember that on the assessment you will answer multiple choice questions using a computer. They will look different to those shown in this book and may involve selecting the right option from a dropdown menu or clicking a checkbox next to the correct response.

## Preparing for this section of the assessment

- ☑ Visit the website https://www.protectiveservicesgroup.qld.gov.au/Pages/default.aspx.
- ☑ Familiarise yourself with the types of questions contained in this section.
- ☑ Read the explanations in this book carefully.
- ☑ Attempt the practice questions in this book.
- ☑ Read daily, use a dictionary to look up unfamiliar words and attempt word-based logic puzzles.

# Types of questions

In this section of the assessment, you are likely to find the following types of questions:

| | |
|---|---|
| **Choose the misfits** | Choose two words that are different to the others. |
| **Find the synonym** | Choose the word that is closest in meaning. |
| **Find the relationship** | Find the relationship between words. |
| **Logic questions** | Use logic to find the answer or choose the sentences that prove a statement is true. |

On the following pages are explanations of the four different types of questions in the table above, along with examples and ideas about how to find the answers. There are also practice questions for you to test yourself.

Note that the example and practice questions in this book give you an indication of the types of questions that you will find on the assessment. They are not necessarily representative of the full range of questions that you will encounter. The difficulty of the example and practice questions may also vary from those on the assessment.

# Choose the misfits

This type of question tests your ability to identify words that are alike. You will be given six words and asked to find two words that are different from the others. You will need to look for a common feature that applies to only four of the words.

Sometimes the link will be in the word meanings, so you need to look for synonyms (words that have the same meaning). In other cases, the link will be based on a particular classification of things like kinds of animals or groups of jobs.


Sometimes there may be a link that relates to three of the words, but not to the others. You must find the link that applies to four of the words and leaves out only two of them.

## Example question

Read the question carefully. You are looking for two words that *do not fit*.

Four of the following are alike in some way. Select the other two.

**A** torrent
**B** deluge
**C** flood
**D** riot
**E** chop
**F** pelt

## Answer with explanation

You need to work out the type of connection that the words have. Do four of the words have the same meaning? Can four of the words be grouped according to the type of thing they are naming or describing?

In this question, there are four words that relate to fast-flowing water: *torrent, deluge, flood* and *pelt*. *Riot* and *chop* stand out because they do not relate to water. Therefore, the correct answer is **D** and **E**.

**D** riot
**E** chop

## Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

### Question 1

Four of the following are alike in some way. Select the other two.

**A** frank
**B** sweet
**C** stamp
**D** candid
**E** truthful
**F** forthright

### Question 2

Four of the following are alike in some way. Select the other two.

**A** kangaroo
**B** elephant
**C** spider
**D** whale
**E** lizard
**F** mouse

### Question 3

Four of the following are alike in some way. Select the other two.

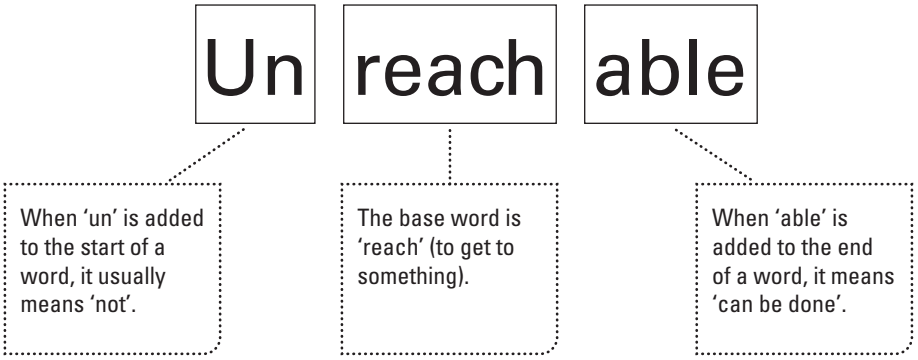
**A** wind
**B** ocean
**C** cloud
**D** island
**E** valley
**F** mountain

# Find the synonym

This type of question tests your knowledge of synonyms (words that have the same meaning). You will be given a word and asked to choose (from a list of alternatives) the word that is closest in meaning.

**TIP**

Breaking a word down into smaller parts can help you find the meaning of a word; for example, the word *unreachable* means not able to be reached.




Knowing the meaning of *prefixes* and *suffixes* can help you to find the meaning of words.

- *Prefixes* are common groups of letters at the *start* of a word (re, un, tri, pre, dis).
- *Suffixes* are common groups of letters at the *end* of a word (ment, able, ness, ful).

## Example question

Find the word that means most nearly the same as *palatial*.

**A** regal
**B** friendly
**C** smoky
**D** spacious
**E** palatable

## Answer with explanation

### If you know the word

First, think about the meaning of the word, keeping in mind that words often have more than one meaning. *Palatial* means 'like a palace' or 'having lots of space'.

Last, think of your own definition for each of the words left on the list and choose the one that is closest. The remaining word: *regal* means 'royal', and does not mean 'like a palace' or 'having lots of space'. Therefore, the correct answer is **D**.

**D** spacious

### If you don't know the word

Ask yourself the following questions:

- *What words do I know that are like this one?* The word palatial comes from the word palace. The answers, *regal* and *spacious* are associated with the word palace. Keep in mind that words that look the same do not necessarily have the same meaning; for example, *palatable* looks a bit like *palatial* but means 'tasty'.
- *Can I cross off any words that I know are incorrect?* For example, *friendly*, *smoky*, and *palatable* are not related to *palatial* and can be eliminated.
- *Where might I have read this word or heard it used?* For example, large houses are sometimes described as *palatial* to show that they have as much space as a palace.
- *Can I break the word down into smaller parts?* (See tip p. 4.) If so, does this help me find the meaning of the word? For example, *palatial* has the base word *palace*. Palaces have a lot of space—*spacious* means having lots of space.
- Therefore, the word that means most nearly the same as palatial is **D**.

**D** spacious

## Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

**Question 1**
Find the word that means most nearly the same as *assent*.

**A** post
**B** climb
**C** raise
**D** argue
**E** agree

**Question 2**
Find the word that means most nearly the same as *manipulate*.

**A** introduce
**B** obstruct
**C** manage
**D** control
**E** write

**Question 3**
Find the word that means most nearly the same as *sympathetic*.

**A** common
**B** compatible
**C** compliant
**D** comparable
**E** compassionate

# Find the relationship

These questions test your ability to recognise the relationships between words. You will be given three different words; the first two words establish a relationship and you must then use this relationship to connect the third word to one in the list. Some of the ways that the words could be linked are by:

- their function or how they work
- their meaning
- being part of the whole
- their degree of intensity (more/less intense form of the other).

## Example questions

These words are related to each other.

Find which word in the list makes a pair with the same relationship as yachts have with wind.

### Question 1

*Yachts* are to *wind* as *rowboats* are to:

**A** oar
**B** sail
**C** float
**D** glass
**E** team

### Question 2

*Complete* is to *finish* as *courageous* is to:

**A** end
**B** wise
**C** over
**D** brave
**E** happy

### Question 3

*Ingredient* is to *dish* as *thread* is to:

**A** sew
**B** yarn
**C** stitch
**D** fabric
**E** needle

### Question 4

*Statement* is to *speech* as *snooze* is to:

**A** lie
**B** nap
**C** rest
**D** sleep
**E** snore

# Answers with explanations

## Question 1—Function

**Question 1**

*Yachts* are to *wind* as *rowboats* are to:

**A** oar
**B** sail
**C** float
**D** glass
**E** team

This question uses words that are related by function (what they are used for). The relationship between *yachts* and *wind* is that yachts are moved by wind. It may help to put this in a sentence; for example, *yachts are moved by wind*.

You then need to apply the same relationship to *rowboats*. *Rowboats are moved by* _____ . Then, see which of the available options best completes the sentence.

Therefore the correct answer is **A**.

**A** oar

## Question 2—Meaning

*Complete* is to *finish* as *courageous* is to:

**A** end
**B** wise
**C** over
**D** brave
**E** happy

This question uses words that have the same meaning. *Finish* means the same as *complete*. This means that you need to look for a word in the list that means the same as *courageous*. Brave is another word for courageous, therefore, the correct answer is **D**.

**D** brave

It is important to note that these types of questions may also have words that are linked because they have the opposite meaning.

## Question 3—Part of the whole

*Ingredient* is to *dish* as *thread* is to:

**A** sew
**B** yarn
**C** stitch
**D** fabric
**E** needle

Here the relationship is that one word describes part of the other. An *ingredient* is a part of a *dish*. A *thread* is part of a *fabric*. Therefore, the correct answer is **D**.

**D** fabric

### Question 4—Degree of intensity

*Statement* is to *speech* as *snooze* is to:

**A** lie
**B** nap
**C** rest
**D** sleep
**E** snore

The relationship here is in the degree of the actions. A *statement* is shorter than a *speech*. A *snooze* is shorter than a *sleep*. Therefore, the correct answer is **D**.

**D** sleep

## Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

### Question 1

*Beautiful* is to *ugly* as *strong* is to:

**A** feeble
**B** enclose
**C** brighten
**D** diminish
**E** colourless

### Question 2

*Knife* is to *cut* as *plectrum* is to:

**A** tune
**B** dance
**C** strum
**D** music
**E** perform

### Question 3

*Sliver* is to *slice* as *chuckle* is to:

**A** laugh
**B** grin
**C** giggle
**D** smile
**E** snicker

**Question 4**
*Letter* is to *alphabet* as *ship* is to:

**A** mast
**B** craft
**C** fleet
**D** marine
**E** transport

# Logic questions

Logic questions test your ability to think logically. Some questions will give you a number of statements with a question at the end. They require you to *use logic* to find the right answer.

Other questions will ask you to *prove that a sentence is true*. They have a summary sentence followed by five statements. The task is to find the two sentences that prove the summary sentence.


## Tips for solving 'prove the sentence' questions

All the statements are related to the summary sentence but only two of them together give all the evidence needed to *prove* it. No single statement will give you all of the information you require. You need to read each statement and think about how it might fit with another statement to allow you to prove the summary sentence.

Be careful not to take into account information from a third statement. The two you choose must stand alone.

## Example questions

These statements provide all the information you need.

*One* of these answers is right.

Summary sentence: this should be taken as true.

Find the *two* statements that prove the sentence.

**Question 1**
There are five children in a family. Ezra is older than John and Chris. Justin is younger than Chris and John. Ava is older than Ezra. Who is the youngest child?

**A** John
**B** Ava
**C** Ezra
**D** Chris
**E** Justin

**Question 2**
Find the two statements which together prove that James went surfing at the weekend.

**A** James prefers football to surfing.
**B** James's friends went surfing on Saturday.
**C** The waves were very good at the weekend.
**D** James plays football with his friends on Sunday.
**E** James joins his friends every time they go surfing.

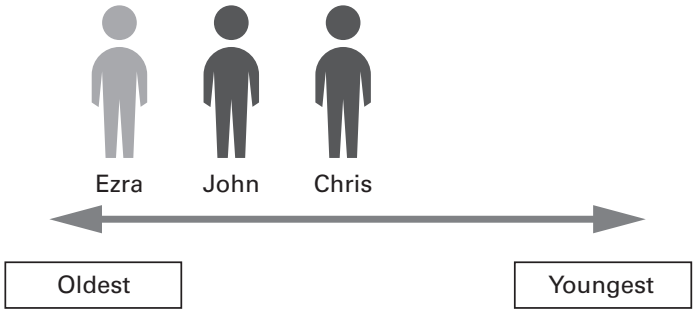
# Answers with explanation

## Question 1—Solve the problem

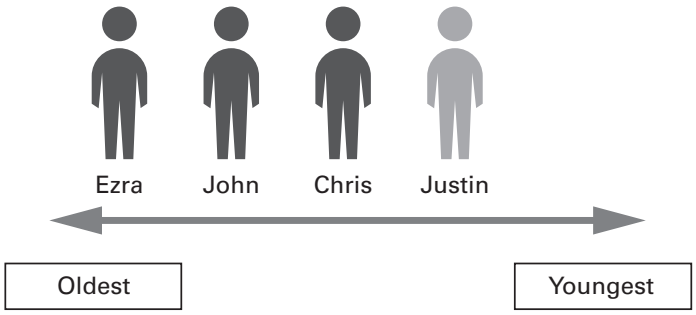
There are five children in a family. Ezra is older than John and Chris. Justin is younger than Chris and John. Ava is older than Ezra. Who is the youngest child?

**A** John
**B** Ava
**C** Ezra
**D** Chris
**E** Justin

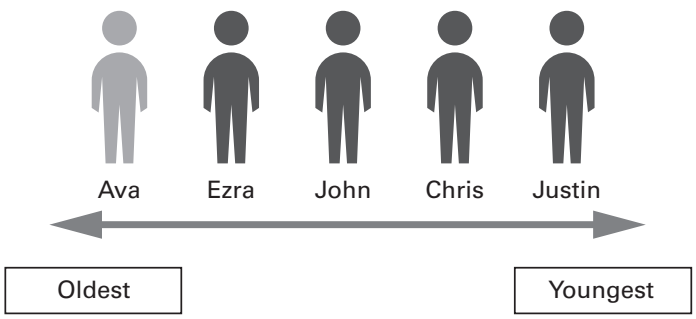
This question is asking you to find out which child is the youngest. For these types of questions, it is useful to draw a picture or diagram. You can go through each statement and add to the diagram.




Ezra is older than John and Chris.




Justin is younger than Chris and John.




Ava is older than Ezra.

The youngest child is Justin; therefore, the correct answer is **E**.

**E** Justin

## Question 2—Prove the sentence

Find the two statements which together prove that James went surfing at the weekend.

**A** James prefers football to surfing.
**B** James's friends went surfing on Saturday.
**C** The waves were very good at the weekend.
**D** James plays football with his friends on Sunday.
**E** James joins his friends every time they go surfing.

The first step is to read through each of the statements and consider which ones have similar types of information.


Statements that have some information that is not directly relevant can often be paired to prove the summary sentence.

Statement **C** gives us information about waves and the weekend. There are no other options about waves to pair this with. Therefore, we can eliminate this option.

Statements **A** and **D** both have information about football. They also mention Sunday (part of the weekend). However, they *do not* prove that James went surfing on the weekend so we need to look at the other statements.

Statements **B** and **E** both have information about James's friends. They also mention surfing and Saturday (part of the weekend). If James joins his friends every time they go surfing (**E**) and James's friends went surfing on Saturday (**B**), then James must have gone surfing on Saturday. These two statement prove that James went surfing at the weekend.

The correct answers are:

**B** James's friends went surfing on Saturday.
**E** James joins his friends every time they go surfing.

# Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

### Question 1

Find the two statements which together prove that Sally is Brian's sister.

**A** Sally and Brian live in the same house.
**B** Brian has a sister.
**C** George is Brian's father.
**D** Sally's mother has a son.
**E** Sally is George's daughter.

### Question 2

Find the two statements which together prove that Helen ate cereal last night.

**A** Helen ate pears with her cereal yesterday.
**B** Helen eats cereal every day with milk.
**C** Helen doesn't always eat fruit.
**D** Helen only eats fruit at night.
**E** Helen likes eating pears.

### Question 3

The cafeteria **does not** serve pizzas in the same week it serves focaccias. Sausages **are not** served in the same week as hot dogs. Hot dogs **are** served in the same week as focaccias. Which statement is correct?

**A** Focaccias are served in the same week as pizzas.
**B** Pizzas are served in the same week as hot dogs.
**C** Sausages are served in the same week as pizzas.
**D** Sausages are served in the same week as focaccias.
**E** Sausages are not served in the same week as pizzas.

### Question 4

The supermarket is due west of the chemist, the school is due south of the supermarket and the hospital is due south of the chemist. Which of the following statements is true?

**A** The chemist is south-east of the school.
**B** The chemist is north-east of the school.
**C** The school is north-east of the chemist.
**D** The supermarket is south-east of the hospital.
**E** The hospital is south-west of the supermarket.

# CHAPTER 2
# Numerical reasoning

## About this section

This section of the Queensland Police Service Protective Services Officer Entrance Assessment tests numerical reasoning skills. The numeracy skills assessment measures your ability to understand, use, apply and interpret numerical problems set in a range of contexts.

You will need to enter a number as your answer.

This section of the assessment contains 20 questions which you will need to complete in 20 minutes.

## Preparing for this section of the assessment

- ☑ Visit the website https://www.protectiveservicesgroup.qld.gov.au/Pages/default.aspx.
- ☑ Familiarise yourself with the types of questions contained in this section.
- ☑ Read the explanations in this book carefully.
- ☑ Attempt the practice questions in this book.
- ☑ Practise everyday numeracy tasks such as:
  - undertaking a range of calculations using whole numbers, fractions, decimals and percentages (e.g. using money when shopping, paying bills, etc.)
  - working and calculating with rates (e.g. $/kg, $/m, km/h), proportions and ratios (e.g. mixing up fertilisers, changing quantities in recipes).

If you are having difficulty with the tasks in this section, a number of TAFEs, neighbourhood centres and private providers offer courses that you can take to improve your numerical reasoning skills.

## Types of questions

In this section of the assessment, there are questions that test three different types of numerical reasoning skills:

| | |
|---|---|
| **Word problems** | Testing your ability to solve mathematical problems that are written in words. |
| **Number sequences** | Testing your ability to analyse number sequences and patterns to find rules and relationships, and identify missing numbers. |
| **Number squares** | Testing your ability to find number patterns and relationships. |

On the following pages are examples and explanations of the different types of questions you might be asked, along with some worked examples and ideas and hints about how to solve the problems and work out the answers. There are also practice questions for you to test yourself.

Note that the example and practice questions in this book give you an indication of the types of questions that you will find on the assessment. They are not necessarily representative of the full range of questions that you will encounter. The difficulty of the example and practice questions may also vary from those on the assessment.

# Word problems

These questions test your ability to solve mathematical problems that are written in words. You are given a description of a context that contains all of the information you need. To work out the answer, read the description carefully to identify the important information and work out what calculations you need to make. Do the calculations and then think carefully to decide if the answer you have found is reasonable. Then go back, re-read and re-calculate if necessary.

## Example question

Read the context carefully and think about the key information.

Grant competed in a 400 m swimming race. He swam the first 100 m lap in 55 seconds. Each of the three remaining laps took him two seconds longer than the previous lap to swim. How long did Grant take altogether?

## Answer with explanation

1. **Read the problem carefully and think about the important parts.**

   Grant competed in a 400 m swimming race. He swam the first 100 m lap in 55 seconds.

   Each of the three remaining laps took him two seconds longer than the previous lap to swim.

   How long did Grant take altogether?

   In this case the word 'previous' is critical.

2. **Often, creating a diagram, list, table or graph of some sort (that makes sense to you) is useful to summarise the problem and develop a solution. For example:**

Calculate using 1 minute = 60 seconds. A common error is to use 1 minute = 100 seconds.

   Lap 1 55 s

   Lap 2 57 s (2 seconds slower than the previous lap)

   Lap 3 59 s (2 seconds slower than the previous lap)

   Lap 4 61 s (2 seconds slower than the previous lap)

   Total 232 s

   Or you might just write 55 + 57 + 59 + 61 = 232.

   232 seconds is 3 min 52 seconds.

## Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

**Question 1**
80 ml of paint is required to cover an area of one square metre. How many litres of paint are needed to cover an area of 20 square metres?

**Question 2**
300 ml of coffee is required to fill a coffee mug. How many litres of coffee are needed to fill 12 coffee mugs?

**Question 3**
Ali is buying eggs for his cafe. He has calculated that he will need about 120 eggs for the week. The eggs come in cartons of 12 and cost $5.50 for each carton. How much will Ali need to spend on eggs?

**Question 4**
A fast food restaurant offers 50% off the price of your second burger of the same kind. What would be the discount off the total purchase price of two burgers of the same kind?

**Question 5**
If a number $a$ is 10% of another number $b$, then what percentage is $a$ of $2b$?

**Question 6**
If a number $x$ is 20% of another number $y$, then what percentage is $x$ of $2y$?

# Number sequences

This type of question tests your ability to find patterns in a number sequence. You then need to find missing numbers that fit the patterns. The following examples show the most common types of number sequences.

## Constant differences

## Example question

Check the differences between the numbers.

Find the missing number in the following sequence.

5 8 11 ? 17 20

## Answer with explanation

This is an example of the simplest kind of number sequence where the difference between each number is a constant. In this case, there is a constant difference of 3 between the numbers in the sequence, so the missing number is 14.

# Constant differences, combined sequences

## Example question

Sometimes *two* sequences are involved.

Find the two missing numbers in the following sequence.

20 3 18 6 ? 9 14 ?

## Answer with explanation

This example is a variation of the previous kind whereby two number sequences are combined. To make this clearer, the two sequences are shown below, one in **bold** and the other in *italics*.

**20** *3* **18** *6* **?** *9* **14** *?*

Each term of the sequence in bold is decreasing by 2, so the missing number is 16.

20 – 2 = 18 18 – 2 = ? ? – 2 = 14

**20** *3* **18** *6* **?** *9* **14** *?*

**? = 16**

Each term of the sequence in italics is increasing by 3, so the missing number is 12.

3 + 3 = 6 6 + ? = 9 9 + 3 = ?

**20** *3* **18** *6* **?** *9* **14** *?*

*? = 12*

# Changing differences

If the difference is not constant, it is still possible for a pattern to exist.

## Example questions

There is a pattern in the differences.

### Question 1

Find the missing number in the following sequence.

12 14 18 24 ? 42

Rapidly growing sequences suggest multiplication.

### Question 2

Find the missing number in the following sequence.

2 ? 50 250 1250

# Answers with explanations

## Question 1

The difference is increasing by 2 each time as shown.

| | *2* | | *4* | | *6* | | *8* | | |
|---|---|---|---|---|---|---|---|---|---|
| 12 | | 14 | | 18 | | 24 | | ? | 42 |

The fourth difference could be 8 and the missing term could be 32.

As a check, the fifth difference should be 10 and 32 + 10 = 42, which is correct.

## Question 2

The differences are little help here. The rapid increase in terms is a clue. There is a common multiplier. That is, each term is five times the previous one.

The missing term is 10.

| | *× 5* | | | *× 5* | *× 5* | |
|---|---|---|---|---|---|---|
| 2 | | ? | 50 | | 250 | 1250 |

# Changing differences—a special case

# Example question

A square number is a whole number multiplied by itself e.g.:
$2^2 = 2 \times 2 = 4$
$3^2 = 3 \times 3 = 9$

Find the missing number in the following sequence.

| 4 | 9 | ? | 25 | 36 |
|---|---|---|---|---|

Watch out for the square numbers, 1, 4, 9, 16, 25, 36 …

# Answer with explanation

Square numbers commonly appear in number sequences.

4 is $2^2$, 9 is $3^2$, ?, 25 is $5^2$ and 36 is $6^2$. The missing term must be $4^2$, which is 16.

# Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

**Question 1**

Find the missing number in the following sequence.

| 53 | 47 | 41 | ? | 29 |
|---|---|---|---|---|

**Question 2**

Find the missing number in the following sequence.

12 ? 30 39 48

Two sequences are involved.

**Question 3**

Find the two missing numbers in the following sequence.

11 22 17 ? ? 18 29 16

**Question 4**

Find the two missing numbers in the following sequence.

2 10 6 7 10 ? ? 1

**Question 5**

Find the two missing numbers in the following sequence.

0 ? 5 20 ? 10 15 0

**Question 6**

Find the two missing numbers in the following sequence.

32 ? ? 18 20 11 14 4

# Number squares

This type of question also tests your ability to find number patterns and relationships, but in a square grid format.

Two patterns exist:

- one that works horizontally for the rows
- another that works vertically for the columns.

## Example question

First use one pattern to find the missing number(s). Then check the other pattern.

Find the numbers that should be in the empty squares.

| | | | | |
|---|---|---|---|---|
| | 3 | 7 | 11 | 3 + 4 = 7<br>7 + 4 = 11 |
| 3 + 6 = 9 | 9 | | 17 | 9 + 4 = 13<br>13 + 4 = 17 |
| 9 + 6 = 15 | 15 | 19 | | 15 + 4 = 19<br>19 + 4 = 23 |

## Answer with explanation

In the number square above, the pattern in the rows is 'add 4', and the pattern in the columns is 'add 6'.

This means that the two missing numbers must be 13 and 23.

## Example question

Number squares can be made more difficult by leaving out some information, represented by an asterisk or a dash, in addition to the number to be found.

The most obvious pattern is in the rows. Then check for a pattern in the columns.

Find the number that should be in the empty square.

| | | | |
|---|---|---|---|
| 3 | 6 | * | 3 × 2 = 6<br>6 × 2 = 12 |
| 1 | 2 | 4 | 1 × 2 = 2<br>2 × 2 = 4 |
| | 4 | 8 | 2 × 2 = 4<br>2 × 4 = 8 |

## Answer with explanation

From rows 1 and 3, it appears that the horizontal pattern may be 'multiply by 2'.

Checking vertically, notice that in each column the top number is the sum of the bottom two numbers in that column.

That is: 3 – 1 = 2; 6 – 2 = 4; 12 – 4 = 8.

So the missing number is 2.

### Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

**Question 1**

Find the number that should be in the empty square.

| | | |
|---|---|---|
| 1 | * | 16 |
| 3 | 12 | 48 |
| | 36 | 144 |

**Question 2**

Find the number that should be in the empty square.

| | | |
|---|---|---|
| 2 | 3 | 4 |
| 5 | | 7 |
| 8 | 9 | 10 |

**Question 3**

Find the number that should be in the empty square.

| | | |
|---|---|---|
| 1 | 5 | 25 |
| 2 | – | 50 |
| 4 | 20 | |

**Question 4**

Find the number that should be in the empty square.

| | | |
|---|---|---|
| * | 4 | 1 |
| 8 | 6 | 3 |
| 12 | | 7 |

**Question 5**

Find the number that should be in the empty square.

| | | |
|---|---|---|
| 1 | 2 | * |
| 2 | * | 6 |
| | 8 | 12 |

# CHAPTER 3
# Abstract reasoning

## About this section

This section of the Queensland Police Service Protective Services Officer Entrance Assessment measures your ability to think clearly to solve problems and to quickly identify patterns and logical rules based on abstract visual patterns rather than numbers and words. It involves recognising the rule or rules that govern the progression of a pattern from one diagram to another in a series, or to identify the part which is missing from a diagram.

The abstract reasoning test has 60 questions to be completed in 25 minutes. It is recommended that you work steadily through each question. Do not spend too much time on any one question. If you are not certain of an answer, enter your best guess and return to review it later if you have time.

## Preparing for this section of the assessment

- ☑ Visit the website https://www.protectiveservicesgroup.qld.gov.au/Pages/default.aspx.
- ☑ Familiarise yourself with the types of questions contained in this section.
- ☑ Read the explanations in this book carefully.
- ☑ Attempt the practice questions in this book.
- ☑ Attempt pattern-based puzzles.

## Types of questions

In this section of the assessment, three different question styles are used:

| | |
|---|---|
| **Next in sequence** | Choose the shape that would come next in the sequence. |
| **Complete the pattern** | Find the missing shape or pattern. |
| **Middle of the sequence** | Order the shapes and choose the middle shape in the sequence. |

On the following pages are explanations of the three different types of questions in the table above, along with examples and ideas about how to find the answers. There are also practice questions for you to test yourself.

TIP

### General tips for answering abstract reasoning questions

To answer abstract reasoning questions, it is important to adopt a systematic approach:

- *Note details about the shapes in each of the diagrams.* Ask yourself:
  - What types of shapes are in each diagram?
  - How many shapes are there in each diagram?
  - How many sides do the shapes have?
  - Are the shapes black, white or patterned?
  - Are the shapes inside or outside another shape?
  - Are the lines broken or continuous?
- *Look for rules and patterns.* Ask yourself:
  - Is there a pattern in the way particular shapes are placed?
  - Are there shapes added or subtracted in a pattern?
  - How are the shapes the same or different?
  - Are the shapes flipping, sliding or rotating in a pattern?
  - Are some of the items in the shape rotating in different ways?
  - Are the number of sides on the shapes increasing or decreasing?
  - Is there more than one step in the rule or pattern?
- *Eliminate answers that are incorrect.* Ask yourself:
  - Are there any answers that do not follow the pattern?
  - Is there more than one answer that follows the rules and pattern you have identified? If so, is there something else in the pattern that is changing?

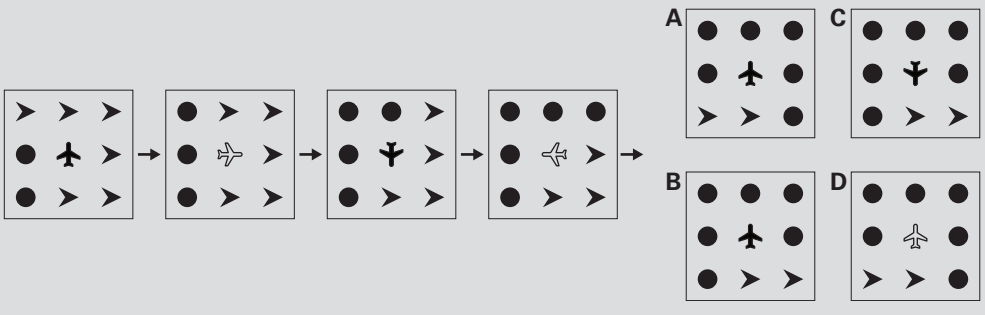
# Next in sequence

These questions consist of four shapes forming a sequence going from left to right. You are to choose, from the alternatives at the right (A, B, C and D), the one that would most logically and simply come next in the sequence.

## Example questions

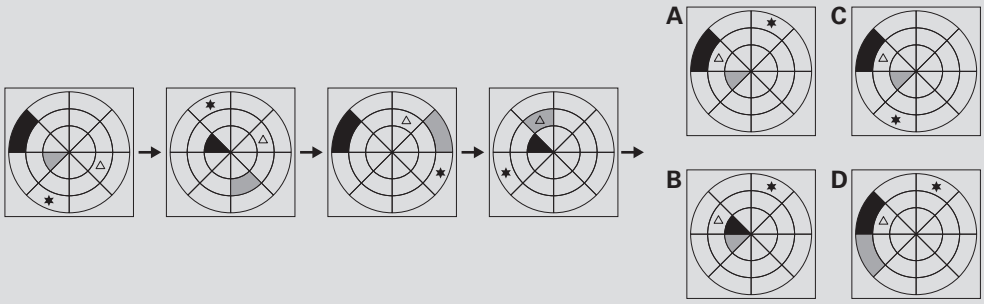
**Question 1**

The shapes on the left form a sequence going from left to right. Which shape, from the alternatives at the right (A, B, C and D), comes next in the sequence?



**Question 2**

The shapes on the left form a sequence going from left to right. Which shape, from the alternatives at the right (A, B, C and D), comes next in the sequence?

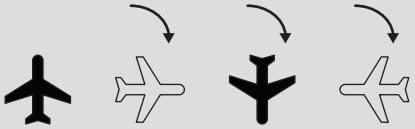



# Answers with explanations

## Question 1

In this sequence, there are several features that are changing:

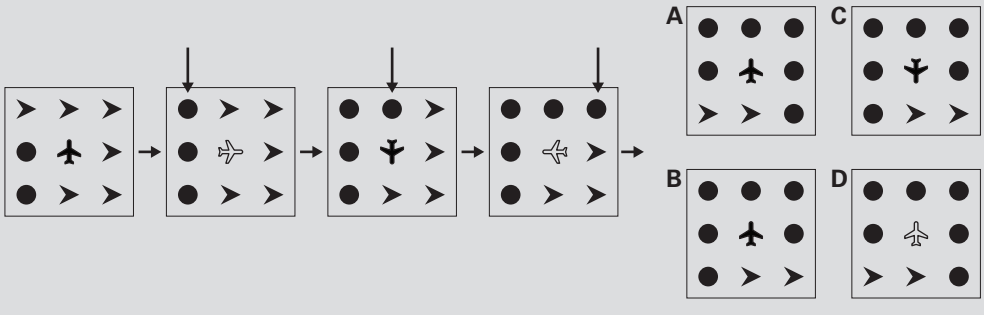
1. The plane in the middle is rotating 90° clockwise and changing from black to white.



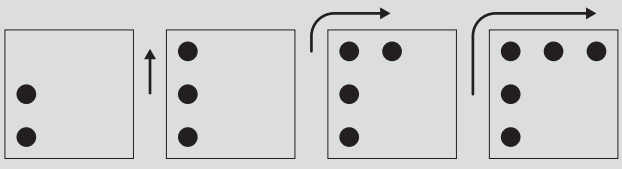
The next step in the sequence will look like this:

This eliminates options C and D.

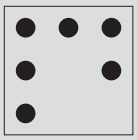
2. In each step of the sequence, one circle has been added to replace an arrow.




The circles have been added clockwise around the square.



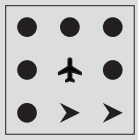
The next step in the sequence will look like this:



This eliminates options A and D.

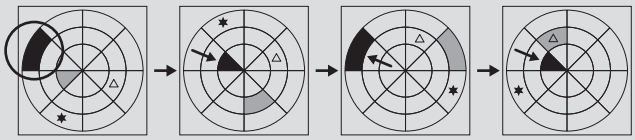
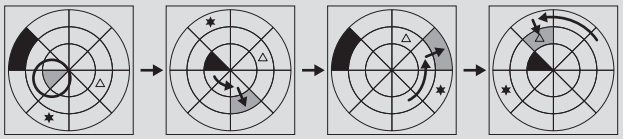
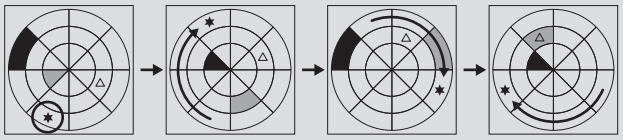
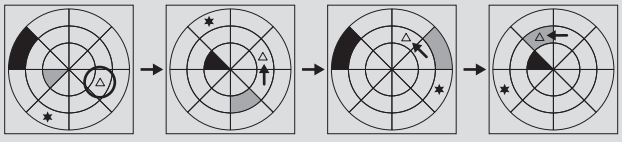
The answer is **B** because it is the only option that has the black plane facing up and the circles in the correct place.

**B**



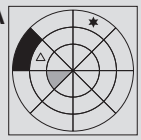
## Question 2

There are four items moving in this sequence.

| | |
|---|---|
| **Black segment** | Moves **in** two spaces then **out** two spaces.<br>  |
| **Grey segment** | Moves **anticlockwise** two spaces and **out** one space.<br>When it reaches the edge of the circle it then moves **in** one space.<br>  |
| **Star** | Moves three spaces **clockwise**.<br>  |
| **Triangle** | Moves one space **anticlockwise.**<br>  |

When the pattern is continued for each of the items, the answer will be **A**.

**A**

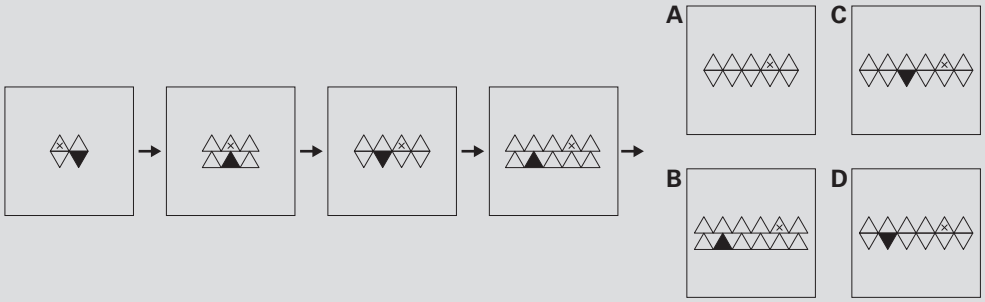


# Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

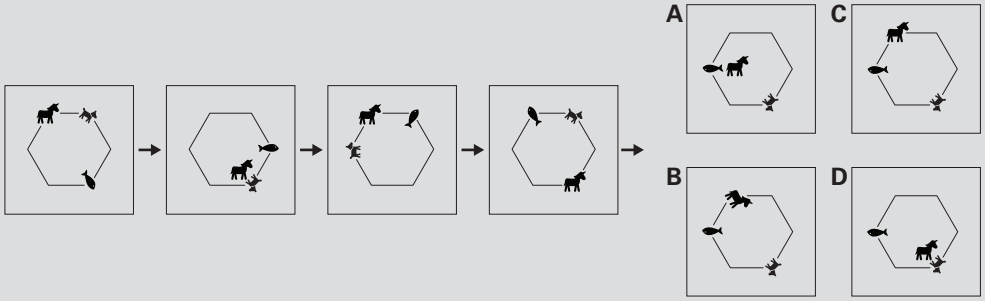
### Question 1

The shapes on the left form a sequence going from left to right. Which shape, from the alternatives at the right (A, B, C and D), comes next in the sequence?




### Question 2

The shapes on the left form a sequence going from left to right. Which shape, from the alternatives at the right (A, B, C and D), comes next in the sequence?



# Complete the pattern

These questions contain a framework of squares, triangles or other shapes. Symbols are distributed around the framework according to a pattern or a rule. The patterns may:

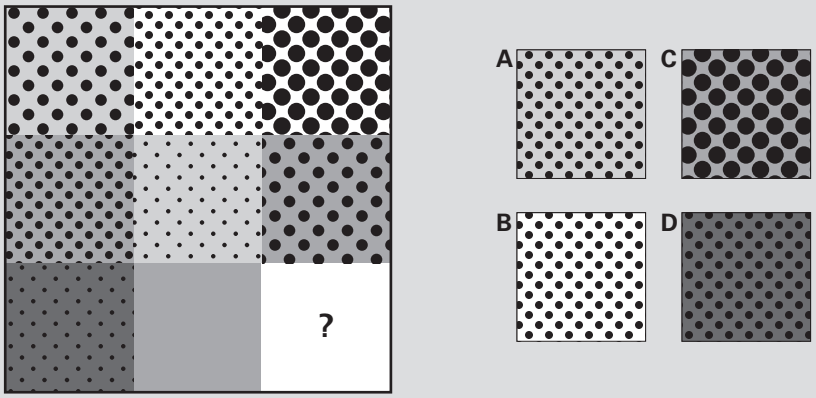
- be symmetrical (e.g. one side is a reflection of the other)
- progress along a pathway through the pattern
- use gradations (e.g. light to dark, few to many, thin to thick, small to big).

Part of the pattern, marked with a ? is missing. You are to choose, from the alternatives at the right (A, B, C and D), the one that best fits in this position.

## Example questions

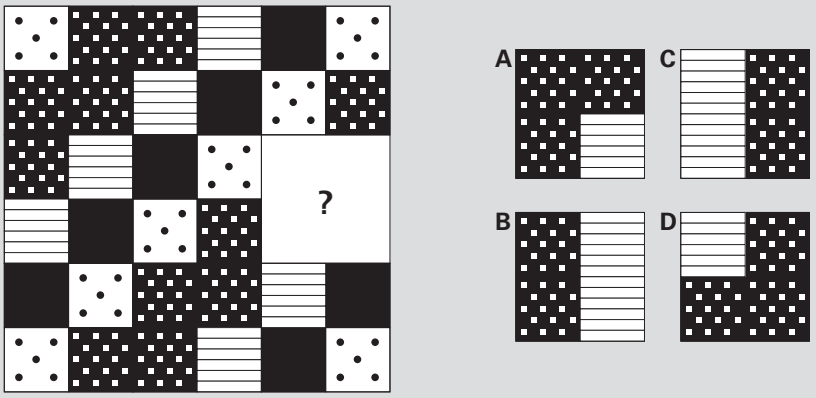
### Question 1

Part of the pattern marked with a ? is missing. Choose the missing part from the alternatives at the right (A, B, C and D).




### Question 2

Part of the pattern marked with a ? is missing. Choose the missing part from the alternatives at the right (A, B, C and D).

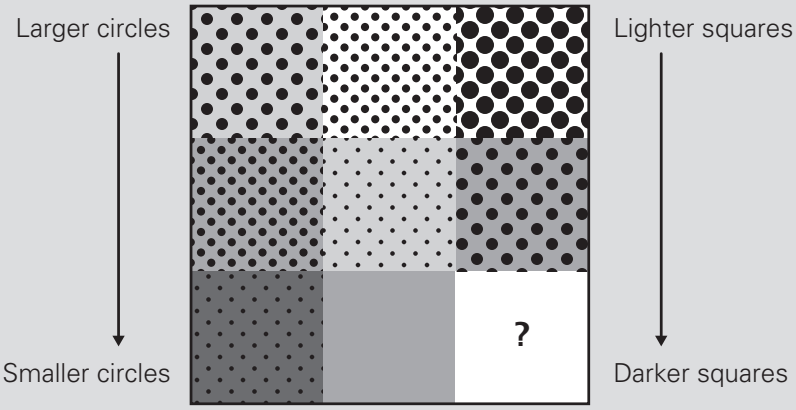


# Answers with explanations

## Question 1

Looking at each of the columns from top to bottom, there are two changes happening:

1. The circles are getting smaller.
2. The squares are getting darker.

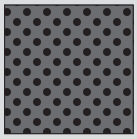



Following the pattern, the unknown square will be darker than the square above it. This eliminates option A and option B, which are lighter.

The unknown square will have smaller circles than the square above it, so option C can be eliminated (it has larger circles).

The correct answer is **D**. It is darker and has smaller circles than the square above the '?'.

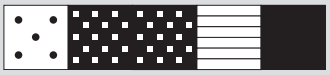
**D**



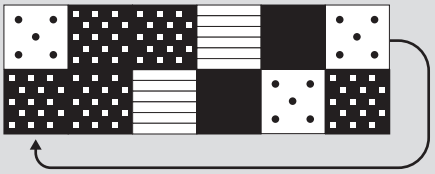
## Question 2

In this question, the boxes follow a continuing pattern from left to right.

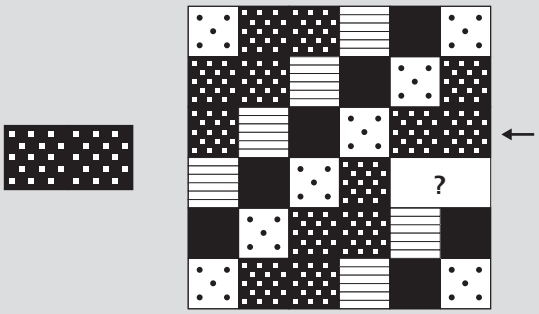
The pattern uses the following sequence:



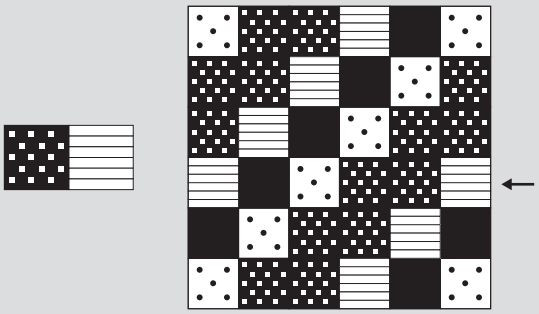
The pattern then starts at the beginning and continues on the next line starting at the first box on the left.



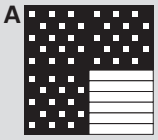
Following the pattern at the top of the unknown section, the next two squares will be:




If we continue the pattern at the bottom of the unknown section, the next two squares will be:



Putting the top and bottom together, we can see that the correct answer is **A**.

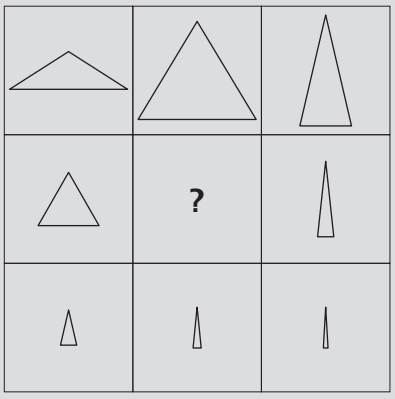


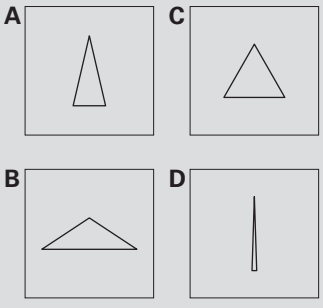

## Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

### Question 1

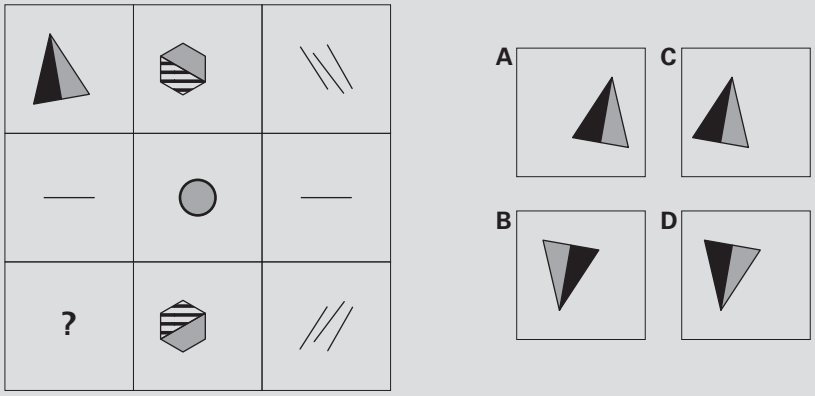
Part of the pattern marked with a ? is missing. Choose the missing part from the alternatives at the right (A, B, C and D).



**Question 2**

Part of the pattern marked with a ? is missing. Choose the missing part from the alternatives at the right (A, B, C and D).




# Middle of the sequence

In each of the following items, five objects or patterns can be rearranged to form a logical sequence. You are then to select the middle object in the sequence (A, B, C, D or E).

## Example questions

**Question 1**

These objects or patterns can be rearranged to form a logical sequence. Choose the middle object in the sequence (A, B, C, D or E).


**Question 2**

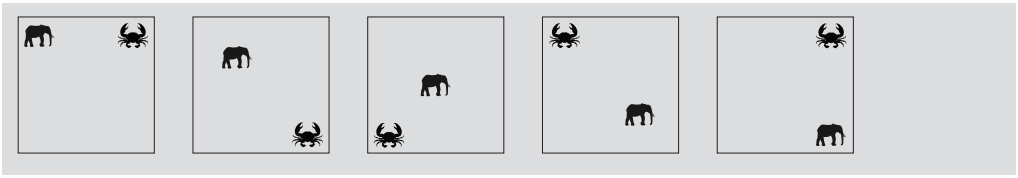
These objects or patterns can be rearranged to form a logical sequence. Choose the middle object in the sequence (A, B, C, D or E).

# Answers with explanations

## Question 1

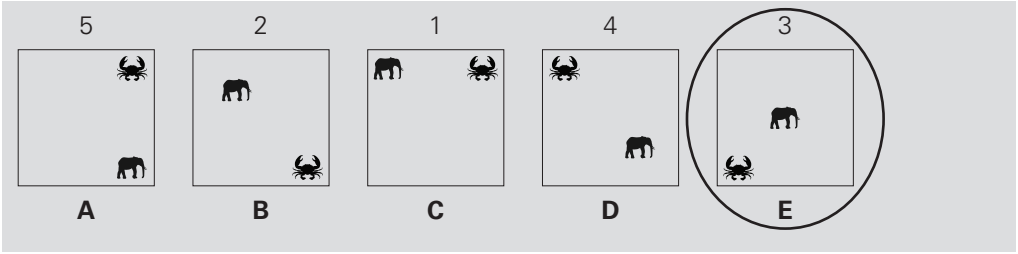
In this sequence, the elephant is moving diagonally from the top left corner to the bottom right corner. The crab is moving clockwise around the square.

The correct sequence will look like this:



We can see that option E comes in the middle of the sequence.

Writing numbers to show where each option comes in the sequence can help to solve these types of questions.

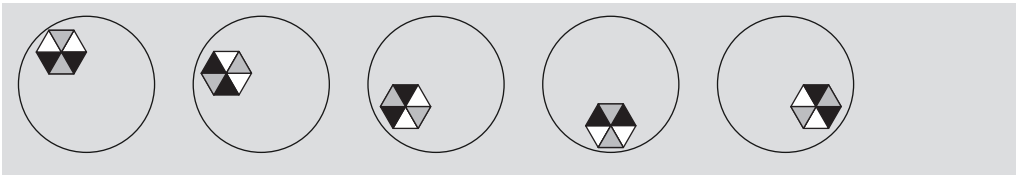



Number 3 is the middle of the sequence so the correct answer is **E**.

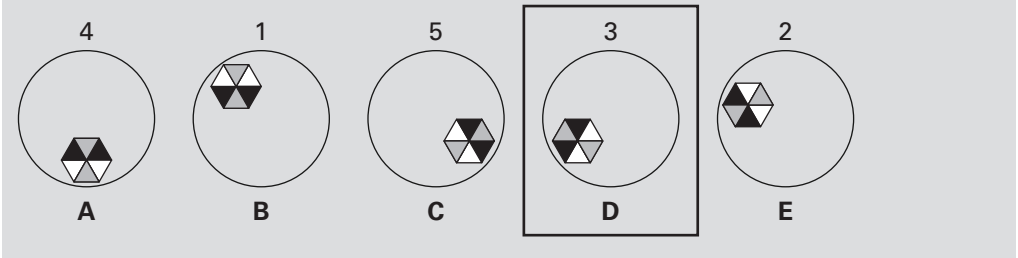
*Note that the sequence could also be arranged in the opposite way with the elephant starting at the bottom right corner of the square. In this case, option E would still be in the middle of the sequence.*

## Question 2

In this sequence, the shape is rotating and moving around the circle. The correct sequence will look like this:



If we number each of the options in the question, we can see that D is number 3, which is the middle of the sequence.



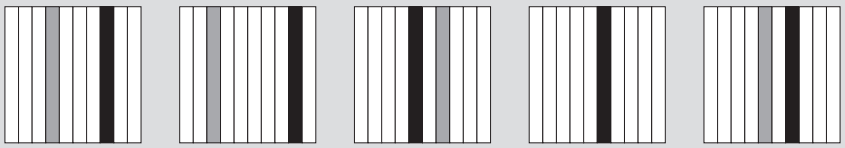

Therefore, the correct answer is **D**.

# Practice questions

Answers with a brief explanation are in the appendix at the end of the book.

### Question 1

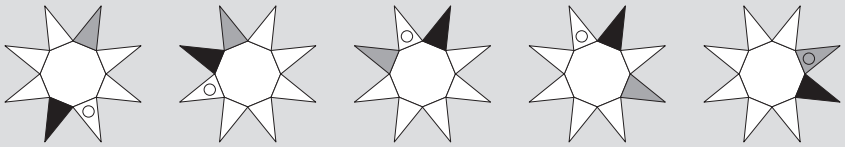
These objects or patterns can be rearranged to form a logical sequence. Choose the middle object in the sequence (A, B, C, D or E).



A B C D E

### Question 2

These objects or patterns can be rearranged to form a logical sequence. Choose the middle object in the sequence (A, B, C, D or E).



A B C D E

# Appendix: practice question solutions

## Chapter 1: Verbal reasoning

### Choose the misfits

#### Question 1

Answer: **B** and **C**

*Frank, candid, truthful* and *forthright* all have similar meanings. *Sweet* and *stamp* have different meanings.

#### Question 2

Answer: **C** and **E**

*Kangaroo*, *elephant*, *whale* and *mouse* are all mammals. *Spider* and *lizard* are not mammals and are therefore different.

#### Question 3

Answer: **A** and **C**

*Ocean*, *island*, *valley* and *mountain* are all permanent natural features that are found on the earth. *Wind* and *cloud* are not permanent and not found on the earth.

### Find the synonym

#### Question 1

Answer: **E**

*Agree* is closest in meaning to *assent*.

#### Question 2

Answer: **D**

*Control* is closest in meaning to *manipulate*.

#### Question 3

Answer: **E**

*Compassionate* is closest in meaning to *sympathetic*.

# Find the relationship

## Question 1

Answer: **A**

*Ugly* and *beautiful* are opposites. *Feeble* is the opposite of *strong*.

## Question 2

Answer: **C**

The function of a *knife* is to *cut*. The function of a *plectrum* is to *strum*.

## Question 3

Answer: **A**

A *sliver* is smaller than a *slice*. A *chuckle* makes a smaller sound than a *laugh*.

## Question 4

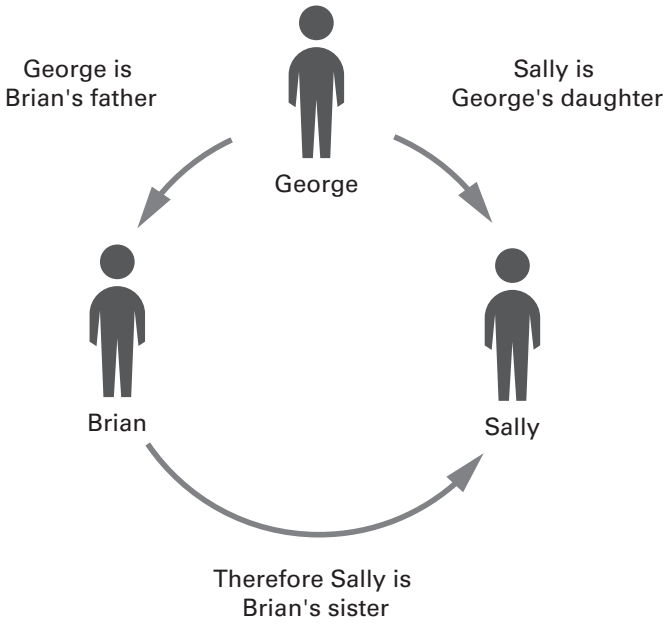
Answer: **C**

A *letter* is part of the *alphabet*. A *ship* is part of a *fleet*.

# Logic questions

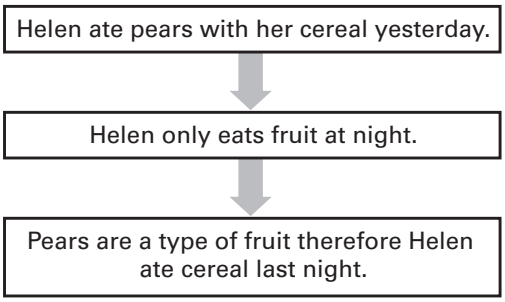
## Question 1

Answer: **C** and **E**



## Question 2

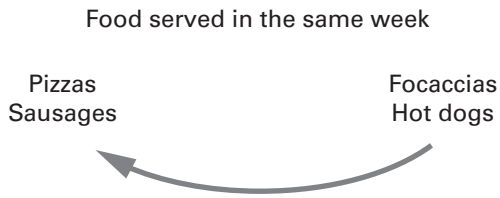
Answer: **A** and **D**




## Question 3

Answer: **C**

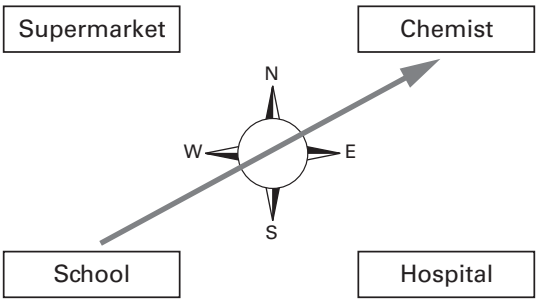
As shown on the diagram, hot dogs are not served in the same week as sausages. Therefore, sausages are served in the same week as pizzas.




## Question 4

Answer: **B**

As shown on the diagram below, the chemist is north-east of the school.



# Chapter 2: Numerical reasoning

## Word problems

### Question 1

Answer: 1.6 l

80 ml of paint per 1 $m^2$

80 × 20 = 1600 ml of paint.

1000 ml = 1 litre (l), so do the conversion.

1600 ml = 1600 ÷ 1000 = 1.6 l.

### Question 2

Answer: 3.6 l

300 ml of coffee = 1 mug.

300 x 12 = 3600 ml of coffee.

1000 ml = 1 litre (l), so do the conversion.

3600 ml = 3600 ÷ 1000 = 3.6 l.

### Question 3

Answer: $55.00

120 eggs ÷ 12 eggs per carton = 10 cartons.

10 x $5.50 = $55.00.

### Question 4

Answer: 25%

The burgers each cost the same price before the discount, as they are of the same kind.

If the discount of 50% on one of the burgers is shared equally over two burgers, the discount is 25% for each, and therefore, for the total.

Alternatively, use an example price to work out the answer.

If the burger costs $10:

$10 + $10 = $20 full price.

$10 + $5 = $15 discounted price for two burgers.

$15 is 75% (or $\frac{3}{4}$) of $20, so the total discount is 25%.

### Question 5

Answer: 5%

If a number is 10% of a second number, by doubling the second number the percentage of the first number halves.

Alternatively, use example numbers in the place of the pronumerals.

When $b = 50$, $a = 5$.

$2b = 100$.

$\frac{5}{100} = 5\%$.

### Question 6

Answer: 10%

If a number is 20% of a second number, by doubling the second number the percentage of the first number halves.

Alternatively, use example numbers in the place of the pronumerals.

When $y = 50$, $x = 10$

$2y = 100$

$\frac{10}{100} = 10\%$

## Numerical sequences

### Question 1

Answer: 35

There is a difference of 6 between each number in the sequence.

41 – 6 = 35.

### Question 2

Answer: 21

There is a difference of 9 between each number in the sequence.

12 + 9 = 21.

### Question 3

Answer: 20 and 23

There are two number sequences in this pattern.

The first sequence is increasing by 6.

11 + 6 = 17, 17 + 6 = 23, 23 + 6 = 29.

The second sequence is decreasing by 2.

22 – 2 = 20, 20 – 2 = 18, 18 – 2 = 16.

### Question 4

Answer: 4 and 14

There are two number sequences in this pattern.

The first sequence is increasing by 4.

2 + 4 = 6, 6 + 4 = 10, 10 + 4 = 14.

The second sequence is decreasing by 3.

10 – 3 = 7, 7 – 3 = 4, 4 – 3 = 1.

### Question 5

Answer: 30 and 10

There are two number sequences in this pattern.

The first sequence is increasing by 5.

0 + 5 = 5, 5 + 5 = 10, 10 + 5 = 15.

The second sequence is decreasing by 10.

30 – 10 = 20, 20 – 10 = 10, 10 – 10 = 0.

### Question 6

Answer: 25 and 26

There are two number sequences in this pattern.

The first sequence is decreasing by 6.

32 – 6 = 26, 26 – 6 = 20, 20 – 6 = 14.

The second sequence is decreasing by 7.

26 – 7 = 18, 18 – 7 = 11, 11 – 7 = 4.

## Number squares

### Question 1

Answer: 9

The pattern in the rows is ‘multiply by 4’.

1 × 4 = 4, 4 × 4 = 16.

3 × 4 = 12, 12 × 4 = 48.

9 × 4 = 36, 36 × 4 = 144.

### Question 2

Answer: 6

The pattern in the rows is ‘increase by 1’.

2 + 1 = 3, 3 + 1 = 4.

5 + 1 = 6, 6 + 1 = 7.

8 + 1 = 9, 9 + 1 = 10.

## Question 3

Answer: 100

The pattern in the rows is 'multiply by 5'.

$1 \times 5 = 5$, $5 \times 5 = 25$.

$2 \times 5 = 10$, $10 \times 5 = 50$.

$4 \times 5 = 20$, $20 \times 5 = 100$.

You can also check this by looking at the pattern in the columns, which doubles each figure.

## Question 4

Answer: 10

The pattern in the columns is 'add 2, then add 4'.

$6 + 2 = 8$, $8 + 4 = 12$.

$4 + 2 = 6$, $6 + 4 = 10$.

$1 + 2 = 3$, $3 + 4 = 7$.

## Question 5

Answer: 4

The pattern in the columns is 'multiply by 2'.

$1 \times 2 = 2$, $2 \times 2 = 4$.

$2 \times 2 = 4$, $4 \times 2 = 8$.

$3 \times 2 = 6$, $6 \times 2 = 12$.

# Chapter 3: Abstract reasoning

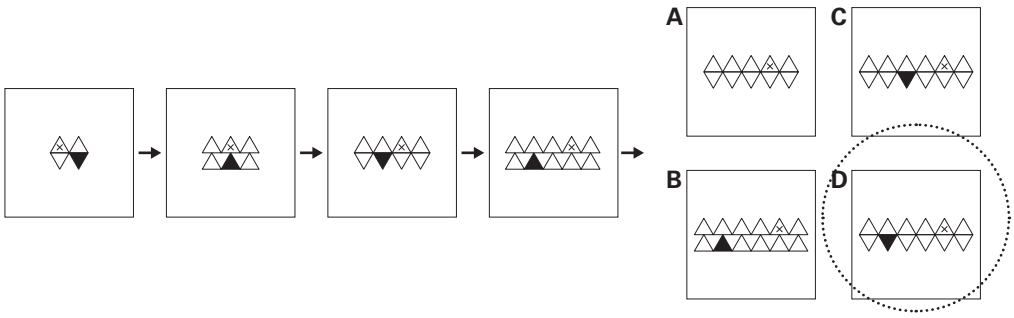
## Next in sequence

### Question 1

In each step:

- The number of triangles is increasing by two each time. There should be 12 triangles in the next step.
- The triangles in the bottom row are flipping.
- The black triangle is always in the bottom row, second from the left.
- The 'x' is always in the top row, second from the right.

**D** is the only option that has all these features.



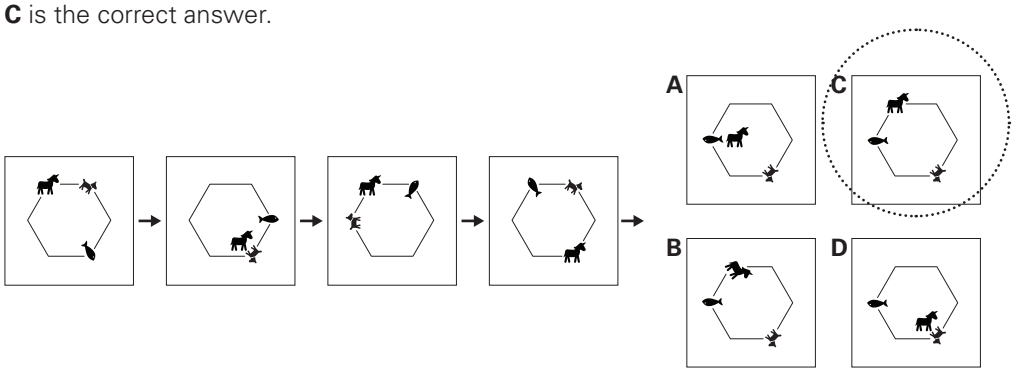

### Question 2

In each step:

- The unicorn is moving three spaces clockwise.
- The dog is moving two spaces clockwise.
- The fish is moving one space anticlockwise.

Following this pattern, the answer could be B or C. However, in each of the steps, the unicorn remains upright. In option B, the unicorn has rotated so it is incorrect.

**C** is the correct answer.

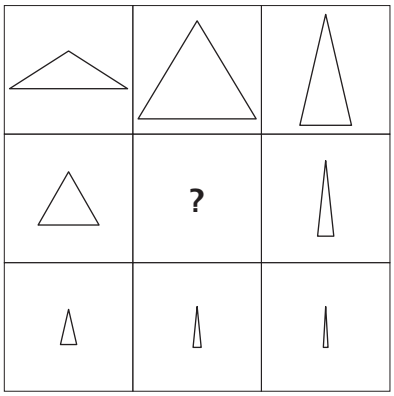


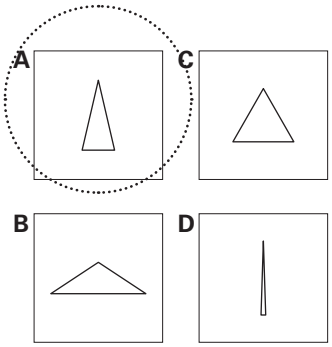
# Complete the pattern

## Question 1

Looking at the framework from top to bottom, the triangles are becoming smaller and narrower. The triangle in the middle will be smaller and narrower than the one above but larger and wider than the one below.

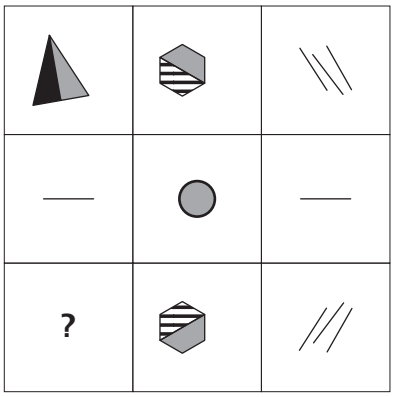
**A** is the only option that fits these criteria.

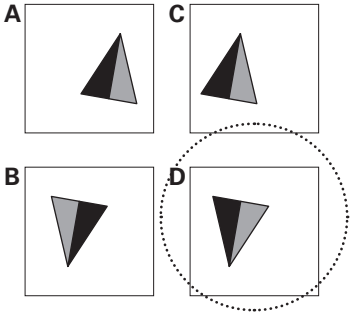



## Question 2

The bottom half of this framework is a reflection of the top half. A reflection of the triangle in the top left corner will look like option **D**.

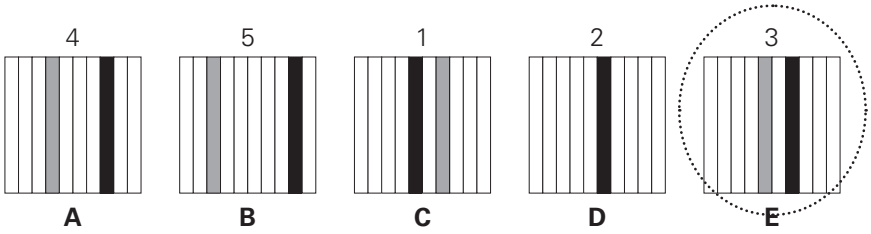


# Middle of the sequence

## Question 1

In this sequence, the black line is moving one space to the right and the grey line is moving one space to the left. Option **E** is the correct answer because it is in the middle of the sequence.

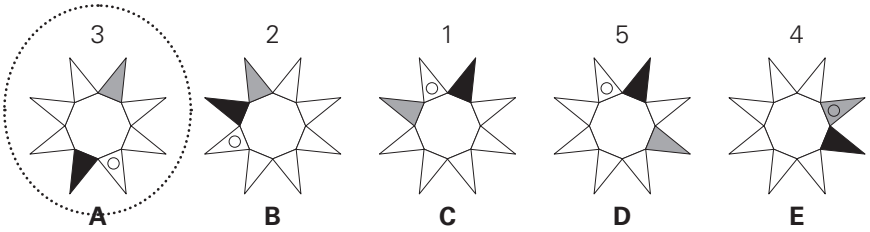



## Question 2

This sequence has the following pattern:

- The grey triangle is moving one position clockwise.
- The black triangle is moving two positions anticlockwise.
- The circle is moving two positions anticlockwise.

When we number the sequence, we can see that option **A** is in the middle of the sequence and is therefore the correct answer.



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