

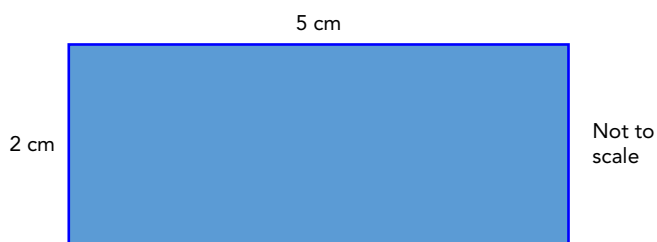
Mathematics level 2

Measurement and Geometry

Example: Measurement

What is the perimeter of this rectangle?

- A 5 cm
- B 7 cm
- C 10 cm
- D 14 cm



**ANSWER** D: 14 cm

Students select option A: as they may misread the question and identify the value of the length.

Students select option C: as they may add 5 and 2 on the diagram to get 7.

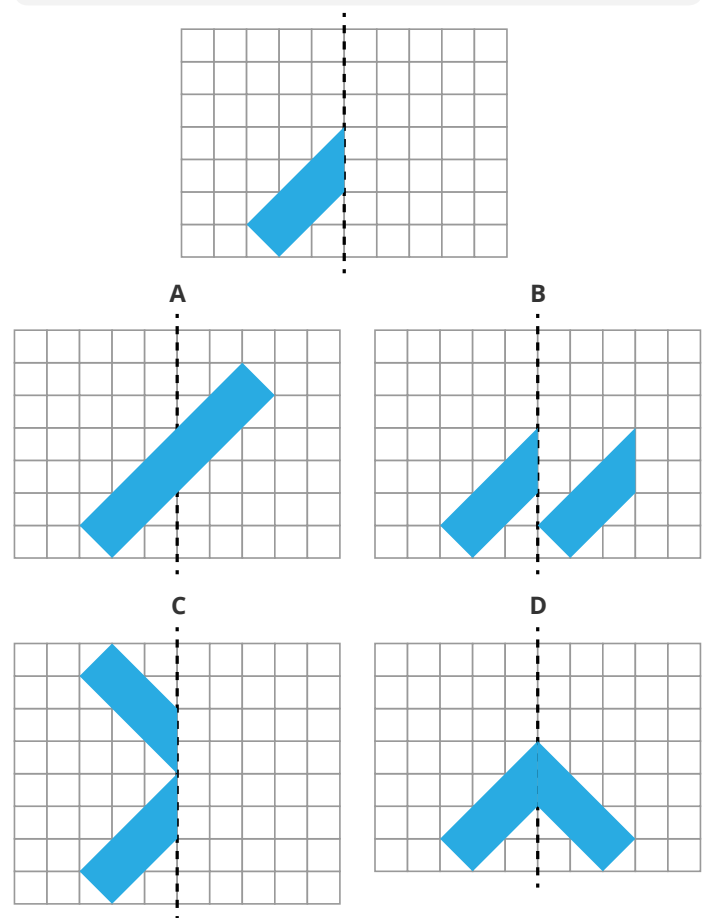
Students select option D: as they may confuse perimeter and area, and multiply the numbers 5 and 2 from the diagram.

**COMMENTARY**

Students are required to find the perimeter of a rectangular shape, by finding (acknowledging) the missing side lengths and then adding together, to find the perimeter.

Example: Geometry

Which is the correct reflection of this shape about the mirror line?



**ANSWER** D

Students select option A: as they may continue the shape, to make a rectangle.

Students select option B: as they confuse reflection and translation.

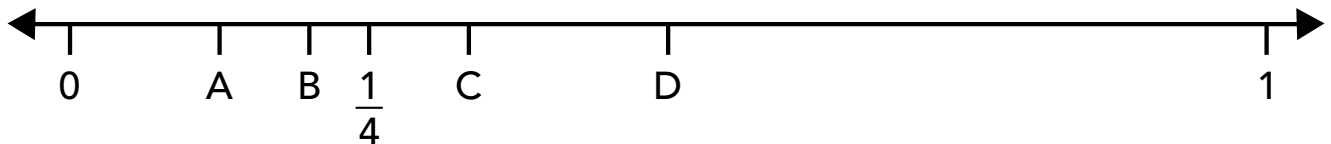
Students select option C: as they may reflect in the horizontal axis rather than the vertical axis.

**COMMENTARY**

Students are required to understand the term reflection, and identify the correct diagram illustrating reflection. They need to be aware that the reflected object should be the same distance from the mirror line, as the original one.

Mathematics level 2  
Number and Algebra

Example: Number



This number line has letters marking  $\frac{1}{3}$ ,  $\frac{1}{2}$ ,  $\frac{1}{5}$  and  $\frac{1}{8}$   
Which letter is at  $\frac{1}{5}$ ?

- A A
- B B
- C C
- D D

**ANSWER** B: B

Students select option A: as they may think  $\frac{1}{5}$  is the smallest fraction.

Students select option C: as they may identify the third fraction in the list OR may think  $\frac{1}{5}$  is larger than  $\frac{1}{4}$ .

Students select option D: as they may identify  $\frac{1}{5}$  as one half.

**COMMENTARY**

Students are required to identify the location of fractions on a number line by placing them in a relative location.

Example: Algebra

In this pattern, what amount is added each time?

**0.022, 0.024, 0.026, 0.028, .....**

- A two ones
- B two tenths
- C two hundredths
- D two thousandths

**ANSWER** D: two thousandths

Students select option A: as they may find the difference between 24 and 22, which is 2.

Students select option B: as they may find the difference and think it is 2 tenths.

Students select option C: as they may find the difference and think 0.002 is two hundredths as each of the numbers in the pattern has 2 hundredths.

**COMMENTARY**

Students are required to identify the amount added each time (0.002) and then identify this as a value of place (thousandths).

## Mathematics level 2

### Statistics and Probability

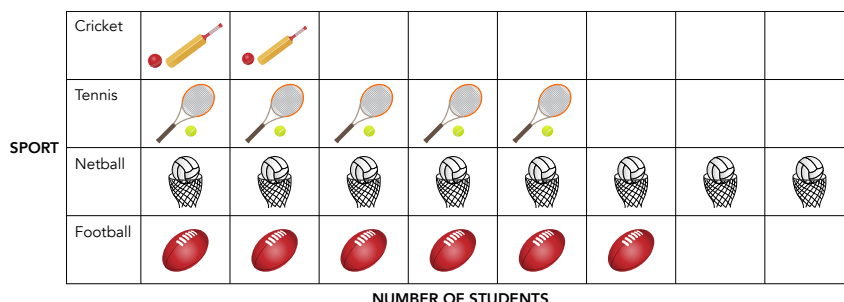
#### Example: Statistics

Kristy asked 21 students at school their favourite sport.

This graph shows her results.

From the graph, which statement is true?

- A Football is the least favourite sport for this class
- B Most students' favourite sport is netball
- C Cricket is the favourite sport for this class
- D Kristy's favourite sport is netball



**ANSWER** B: Most students' favourite sport is netball.

Students select option A: as they may think that the sport at the bottom of the table is the least favourite.

Students select option C: as they may confuse the representation of the graph, OR think the sport at the top of the table is the most favourite.

Students select option D: as they may think that, as netball is the student's favourite, it must also be Kristy's favourite.

#### COMMENTARY

Students are required to read and interpret a picture graph in horizontal representation. Students need to work through each of the statements and interpret if they are true.

#### Example: Probability

In a box of fruit there are 3 bananas, 3 apples, 3 plums and 3 oranges.

A girl takes one piece of fruit without looking.

What is the chance that she takes an apple?

- A  $\frac{1}{12}$
- B  $\frac{1}{9}$
- C  $\frac{3}{12}$
- D  $\frac{1}{3}$



**ANSWER** C:  $\frac{3}{12}$

Students select option A: as they may think as the selection is 1 piece of fruit from 12, there is a 1 out of 12 chance of selecting an apple.

Students select option B: as they may think that, as there are 3 apples and 9 pieces of fruit that are not apples, it means there is 1 selection out of a reduced sample space of 9.

Students select option D: as they may think as the selection is 1 apple from the 3 apples, it is a 1 in 3 chance of selecting an apple OR 1 type of fruit (apples) from 3 other types of fruit.

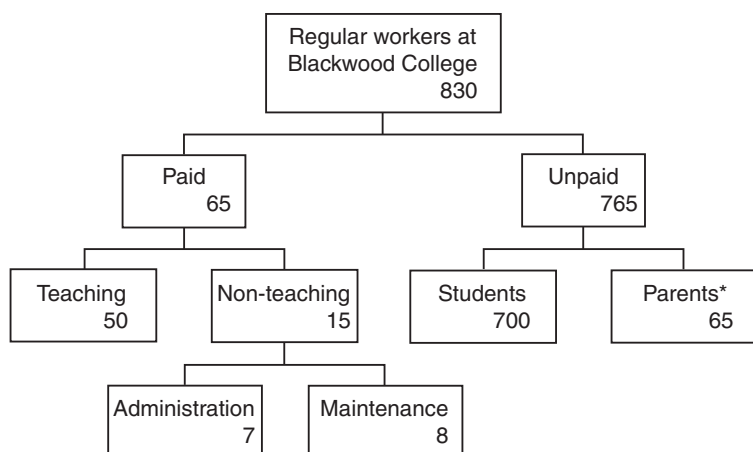
#### COMMENTARY

Students are required to read and interpret a worded problem requiring an understanding of probability. They need to be able identify the whole sample space (12) and the chance of selecting an apple (3), and then express this as a fraction,  $\frac{3}{12}$ .

## Reading level 2

## Critique and Review

## Blackwood College

**Note**

\* Volunteer parents work on average 1-2 days in a term.

The information about Blackwood College is presented as a tree diagram. It could have been presented as a written description, a graph, a table or a list.

The tree diagram was probably chosen because it is especially useful for showing

- A** how big each group is compared to other groups.
- B** the way the number of people in the school changes over time.
- C** how the larger groups can be broken down into smaller groups.
- D** the different things that are done by the workers at the school.

**Answer:** C. how the larger groups can be broken down into smaller groups.

**Explanation**

The student is required to identify the advantage of presenting information in a tree-diagram. To answer correctly, the student must reflect on why the author of this text chose its format for an audience. The student might mentally compare the text to the other text-types named in the question (if he or she is familiar with them), but this is not strictly necessary. What is needed to arrive at the correct answer is to understand that the primary purpose of the text is to display the staff in sub-categories.

**Text complexity**

The text has familiar aspects as well as a key aspect that is complex. Among the familiar aspects are the context and vocabulary. The context for the tree-diagram is a (fictional) school. The content comprises categories of people that are regularly associated with schools: teachers, parent volunteers, students, maintenance staff, etc. The vocabulary is mostly familiar, with a few hard words such as 'administration' and 'maintenance' that occur without contextual support. There is only one sentence in the text, and it is a complex sentence.

The key complexity of the text is that it is a tree-diagram. This may not be a familiar text-type to all students. The diagram is simple to interpret once the student understands its organisation, which is highly logical. Inferring the organisation of the diagram is the key complexity present in this text.

## Reading level 2

## Finding Information

## Aunt Meili

'I must wash my hands. This chilli is making my fingers itch,' said Aunt Meili as she put down her chopping knife. 'You didn't wash your hands Qing. Are you scared of water?' 'No. It's because I hate vegetables.' Qing pushed her chopsticks away.

'If you eat just fish,' said Aunt Meili, 'you will turn into a cat.' 'That's the silliest thing I have ever heard,' said Qing. 'Who ever heard of a person turning into a cat?' 'Did I ever tell you the story about a little girl I knew?' said Aunt Meili. She picked up the chopsticks and put them back on top of Qing's bowl. 'She had big eyes and a long neck, just like you.' She began to stroke the top of Qing's head.

'Don't tell me she turned into a cat!' 'It didn't happen overnight... It happened bit by bit.' Aunt Meili ran her fingers down the side of Qing's neck, behind her ears. 'On the first day she didn't eat vegetables, she became very fussy, just like a cat.'

'This is a silly story,' insisted Qing.

Aunt Meili continued. 'On the second day, she became scared of water, just like a cat.'

Qing played with her napkin, pretending not to listen.

'On the third day, she started to scratch behind her ears, just like a cat.' Aunt Meili went to the sink to wash the chilli from her fingers. 'And on the fourth day, she grew a tail and was eaten by a dog.'

'The back of my ears are itching,' cried Qing.

'Fussy, scared of water, scratching... When was the last time you ate vegetables?' Qing grabbed her chopsticks, aimed straight for the cabbage and closed her eyes.

What happens to the little girl in Aunt Meili's story?

Give each event a number (1–6) to show the order in which it happened.

The first one has been done for you.

- \_\_\_ grows a tail
- \_\_\_ starts to scratch
- 1 stops eating vegetables
- \_\_\_ becomes fussy
- \_\_\_ is eaten by a dog
- \_\_\_ becomes scared of water

**Answer:** States the following order: 5, 4, 1, 2, 6, 3

**Explanation**

The student is required to deal with competing information because the story Aunt Meili tells is interspersed with comments from her and Qing, and is not told in one continuous section. This requires the student to retrieve multiple pieces of information scattered across the text.

There are clear signposts that may help the student: 'on the first day', 'on the second day', etc. The reader must scan over the text to locate these signposts and then match the information from the text to the paraphrased information in the question.

**Text complexity**

The text has many familiar aspects. It is a short, linear, dialogue-based narrative between an aunt and her niece in a kitchen while preparing dinner. The vocabulary is a range of familiar words with a few words that may be slightly less familiar e.g. 'silliest', 'fussy', 'chopsticks', and 'overnight'.

The key aspect of complexity in this text comes from its level of subtlety. The main idea, that the aunt plays a trick on her niece, is strongly implied through multiple clues scattered across the text but is never explicitly stated and requires the reader to make the connections.

## Reading level 2

## Interpret Meaning

## Mali

'You'll be fine,' says my grandmother as I sit down for breakfast, 'once you have eaten some of my roti bread.' She lays the plate carefully in front of me, and then adds a small bowl of curry and a smile. 'I made this especially for you.'

I look at the roti but all I can see is Taeng's round face staring back at me, sneering at me.

'What's wrong, Mali? I thought this was your favourite.'

I nudge the roti behind the water jug.

My grandmother puts her arm around me and gives me a hug that I pretend isn't needed. 'You don't have to go through with this audition,' she says. 'I can call up the school and tell them you are sick. I can tell them that your throat is sore, or that you have a stomach ache.'

But that's exactly what Taeng wants – that I back down, like every other girl in the school does. Well it's not going to happen. I grab the roti and tear it into strips.

★ ★ ★

'I hope you get it,' says a boy in my English class. I have never spoken to him before but he seems to know everything about me. 'I'll be in the hall at lunchtime to cheer you on,' he says. 'I think you're the best dancer. You deserve the lead role.'

It's the same story with the girls behind me; they say my name and pass me secret notes of encouragement. A little no-one like Mali wants to be the leading dancer in the school performance – who would have thought it?

But I can't concentrate on my studies. When I look at my textbook I see Taeng's face on every page. When the teacher asks me a question I panic and drop my pencils, and once I've picked them up I drop them all again. This stupid dance audition is going to be a disaster; I should have kept my mouth shut. Everyone knows that lead roles are only given to 'glamour girls' like Taeng.

In the school hall at lunchtime a small crowd has gathered. I'm standing in my dance clothes, but my feet are made of stone. The teacher sees me and calls me over. I take a deep breath and brace myself.

'Haven't you heard?' says the teacher. 'Taeng has gone home with a stomach ache, so it looks like you will take the lead role in the school performance after all.'

Which of these statements was most likely written on a secret note given to Mali?

- A Mali is a little no-one.
- B Good luck in the audition.
- C Meet me in the hall at lunchtime.
- D Taeng is the school's glamour girl.

**Answer:** B. Good luck in the audition.

## Explanation

This question requires students to identify where one idea is a generalised version of another. The relevant part of the text is found in the second paragraph, and can be identified by matching the words 'secret note' to the words in the question:

It's the same story with the girls behind me; they say my name and pass me secret notes of encouragement.

The explicit information in the text is that Mali was passed encouraging notes by her class mates. This is the idea that the student has to recognise. In the question, four possible notes are given as the options, but only one of them is encouraging. The text contains the general idea, and the correct answer is a specific case of exactly the same idea.

## Text complexity

This text is a narrative with many familiar aspects: the

first part of the narrative is a conversation before school between the main character and her grandmother who makes her breakfast. The second part of the text takes place in a school context, with the main character worrying about an audition for a school performance.

The complexity of the text comes in part from a low level of subtlety in implying the main character's emotions and attitudes, as well as some potentially unfamiliar vocabulary. The main character is alternately worried and determined, and these states of mind are conveyed in her actions and speech rather than through explicit statements. The vocabulary includes a regional food 'roti' that might distract some students, though it is defined in the text in the phrase 'roti bread' and is not a significant part of the story. The rest of the vocabulary items are appropriate for this level of difficulty, and include hard words like 'sneering', 'encouragement', and 'gathered'.

## Reading level 1

### Vocabulary

While on his holiday, James had acquired a camera.

What had James done?

- A** fixed a camera
- B** lost a camera
- C** bought a camera
- D** dropped a camera

**Answer:** C. bought a camera

## Reading level 3

### Vocabulary

Finish this sentence by selecting the correct option.

Something that is incontrovertible

- A** is beyond doubt.
- B** cannot be changed from its original form.
- C** has been weakened.
- D** is difficult to make a decision about

**Answer:** A. is beyond doubt.

## Level 2

### Vocabulary

Three of the words below have almost the same meaning. One word has a **different meaning**. Select the word that has a **different meaning** from the other three words

- A** commission
- B** order
- C** request
- D** receive

**Answer:** D. receive

## Level 2

### Vocabulary

The words below mean that something **lasts for a long time**, or **lasts for a short time**.

Drag each word to the appropriate box.

lasts for a long time

lasts for a short time

temporary - transitory - enduring -  
momentary - durable - constant

**Answer:**

lasts for a long time

lasts for a short time

enduring  
durable  
constant

temporary  
transitory  
momentary