



Student application  
number

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First name(s)

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Family name

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## Selective High School Placement Test

Thinking Skills Question Paper

2023

40 minutes

### INSTRUCTIONS FOR CANDIDATES

Please read this page carefully.

**DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO.**

A separate answer sheet is provided for this test. Please fill in the following information on your answer sheet and on this question paper:

- Student application number
- First name(s)
- Family name

There are **40** questions in this paper. For each question there are four possible answers, **A, B, C, and D**. Choose the **one** correct answer and record your choice on the separate answer sheet. If you make a mistake, erase thoroughly and try again.

You will **not** lose marks for incorrect answers, so you should attempt **all 40** questions.

You **must** complete the answer sheet within the time limit. There will **not** be any extra time at the end of the exam to record your answers on the answer sheet.

You can use the question paper for working out, but no extra paper is allowed.

Calculators and dictionaries are **NOT** allowed.



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- 1 In a computer game, players are awarded coins for each puzzle that they solve. The coins can be used to buy objects within the game. The prices of objects range from 50 coins to 150 coins.

Players earn 10 coins for each easy puzzle that they solve and 15 coins for every difficult puzzle that they solve.

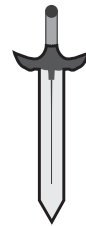
These are the three objects that Jodie would like to buy together with the cost of each of them.



60 coins



80 coins



90 coins

Jodie currently has 35 coins.

What is the smallest number of puzzles that Jodie will need to solve to be able to buy all three objects?

- A 8
- B 13
- C 16
- D 20

2 Five people are sitting in a line.

Jarrah is sitting immediately to the left of Ali.

Daniel is sitting immediately to the right of Nulla.

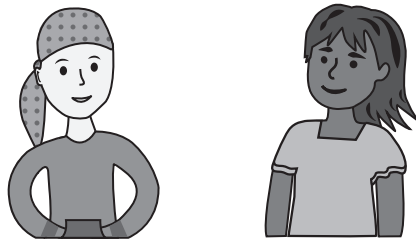
Jessica is sitting next to Daniel.

Jarrah is sitting on one end of the line.

Who is sitting in the middle of the line?

- A Ali
- B Daniel
- C Nulla
- D Jessica

3 Anyone who helped Mr Bamblett with the school garden last week will be given a ticket to the Country Fair at the weekend.



**Katherine:** “That’s great. I helped Mr Bamblett with the garden last Thursday, so I’ll definitely get a ticket.”

**Kylie:** “Fran told me that she is going to the Country Fair. She must have helped out too.”

If the information in the box is true, whose reasoning is correct?

- A Katherine only
- B Kylie only
- C both Katherine and Kylie
- D neither Katherine nor Kylie

4 Harlow bought some items from the shop yesterday. Her receipt is shown below.

chocolate bar	3	\$2.70
lemonade	1	\$1.20
lollies	2	\$1.60
milk	1	\$0.70
<b>total</b>		<b>\$6.20</b>

Madison bought the same items from the shop as well yesterday, but in different quantities. Unfortunately, half of her receipt was missing so she could not see the names of the items. The part of the receipt that she still has is below.

3	\$2.10
2	\$2.40
4	\$3.20
1	\$0.90
	<b>\$8.60</b>

How many lollies did Madison buy?

- A 1
- B 2
- C 3
- D 4

- 5 A scientist attached tracking devices to four sea turtles to monitor their annual return to a beach. Each of the turtles had a three-letter code name.

BLU, the youngest of the turtles, arrived before the oldest turtle, LIL.

The turtle known as EVE arrived just before the youngest turtle and half an hour ahead of the oldest turtle.

The turtle known as TRU arrived a few minutes after BLU.

Which turtle arrived second?

- A BLU
  - B LIL
  - C EVE
  - D TRU
- 6 Funny pet videos are viewed hundreds of thousands of times a day around the world. Many people clearly enjoy watching cats leap away from cucumbers in terror or dogs falling off the backs of couches. But these videos are harmful, and should be made illegal. Forcing pets to perform can be stressful and frightening for them. Furthermore, the desire of their owners to achieve ever-greater numbers of views creates a motive to film more and more extreme videos.

Which one of these statements, if true, most **weakens** the above argument?

- A Many pet videos feature funny things that were caught on camera by chance.
- B Trying to be popular on the internet can be bad for people's mental health.
- C Many countries have strict rules governing the treatment of working animals.
- D The use of performing animals in circuses is generally thought to be morally wrong.

- 7 Eight competitors took part in a series of six challenges. The table below details the results of each of the challenges.

	challenge					
	1	2	3	4	5	6
1 <sup>st</sup>	Luke	Luke	Dawn	Zara	Adam	Jade
2 <sup>nd</sup>	Jade	Beth	Evie	Theo	Dawn	Evie
3 <sup>rd</sup>	Evie	Theo	Adam	Jade	Zara	Zara
4 <sup>th</sup>	Adam	Adam	Zara	Luke	Evie	Theo
5 <sup>th</sup>	Beth	Jade	Theo	Adam	Jade	Luke
6 <sup>th</sup>	Zara	Evie	Luke	Beth	Theo	Dawn
7 <sup>th</sup>	Theo	Dawn	Jade	Evie	Beth	Beth
8 <sup>th</sup>	Dawn	Zara	Beth	Dawn	Luke	Adam

Who was the only competitor who was ranked in a different position in each of the six challenges?

- A Dawn
- B Evie
- C Jade
- D Theo

8

Zoe is going to a party this weekend and most of the children in her class will be going as well.



**Zoe:** "I will know most of the people at the party because they are in my class."

Which one of the following sentences shows that Zoe has made a mistake?

- A Zoe might know some of the people at the party who are not in her class.
- B Most of the people in the class are going to the party because they know each other.
- C Zoe might spend her time at the party getting to know new people.
- D A large number of people might have been invited to the party.

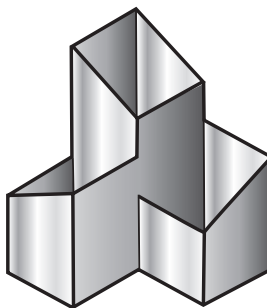
9 Asher, Drashti, Jason and Jenny were all born in the same year but in different months. Asher is older than Jason and younger than Jenny. Drashti is younger than Jason.

Given the information above, which one of the following **cannot** be true?

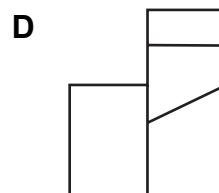
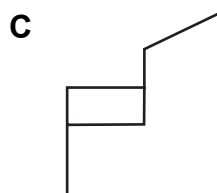
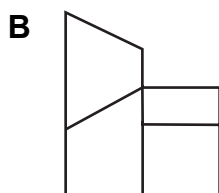
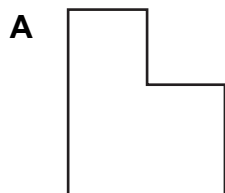
- A Asher was born in October.
- B Drashti was born in December.
- C Jason was born in September.
- D Jenny was born in November.



10 A pencil holder is shown below.

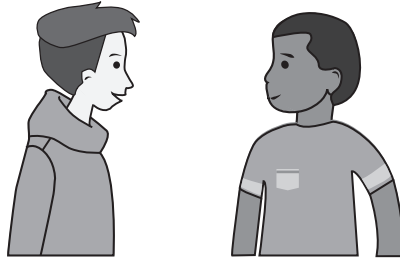


Which one of the following shows a side view of the pencil holder?



11

You can only go on the ride at the theme park if you are at least 12 years old or are with an adult.



**Robbie:** “Bindi just went on the ride with her father, so she must be less than 12 years old.”

**Coen:** “But Nicole was on her own on the ride, so she must be at least 12 years old.”

If the information in the box is true, whose reasoning is correct?

- A Robbie only
- B Coen only
- C both Robbie and Coen
- D neither Robbie nor Coen

12 The captain has decided to choose a team of four people for this weekend’s match. There are only five of the possible players available this weekend and the captain needs to make sure that the team satisfies the following rules:

Terence, Lachlan and Neville cannot all be on the team, but at least one of them must be on it.

Lachlan and Cecil cannot both be on the team.

Prash can only be on the team if Cecil is.

Which person will **not** be on the team?

- A Cecil
- B Prash
- C Neville
- D Lachlan

13 Five friends, Annie, Bailey, Cali, Dom and Ella, have started collecting old coins.

Dom has 1 more coin than Annie.

Bailey has 1 more than Ella.

Cali has twice as many as Bailey.

Dom has twice as many as Ella.

Altogether, the five friends have a total of 26 coins.

Which one of the following has 4 coins?

A Annie

B Bailey

C Cali

D Dom

14 Becca helps her grandfather take care of the flowers he's planted in his garden. She showed him an app on her phone that identifies a plant simply by taking a photo of it. Her grandfather said: "That won't help you be a good gardener. A gardener needs to be able to know – without always relying on someone or something else – what kind of plant it is they're looking at."

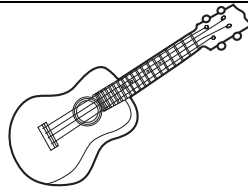
Which one of these statements, if true, most **weakens** his argument?

A There are many different kinds of plants available to gardeners in most places.

B The app does not always correctly identify the plant being photographed.

C People are able to appreciate the beauty of plants without knowing what kind they are.

D Experienced gardeners often use books to help them identify plants.



The ukulele is a musical instrument from Hawaii. It looks a bit like a small guitar.

More and more schools have selected this instrument for their younger children because it is easy to play. This means they can quickly start to play music together. Actively listening and working with others helps them learn to interact with each other better.



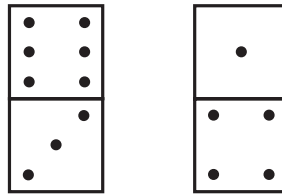
**Ray:** “If they gave Tony’s class ukulele lessons for a term, they would probably get on with each other better.”

**Juan Pablo:** “But it’s not possible to give ukulele lessons to the whole class. That means that some of them will never learn to get along.”

If the information in the box is true, whose reasoning is correct?

- A Ray only
- B Juan Pablo only
- C both Ray and Juan Pablo
- D neither Ray nor Juan Pablo

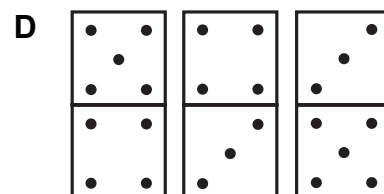
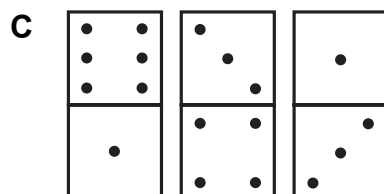
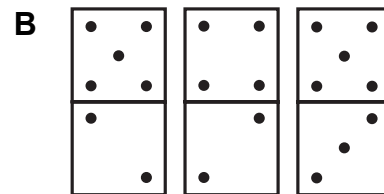
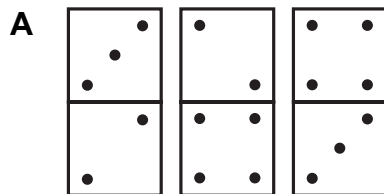
16 Sonny has five dominoes. Two of Sonny's dominoes are shown below:



Sonny joins his dominoes end-to-end so that the two numbers on touching faces of adjacent dominoes are the same. He puts the two dominoes shown above at the ends, and the three others in between them, as shown:



Which could be the three dominoes shown above as blank?



17 In the D'harawal calendar, the year is divided into six seasons, like this:

<b>Burran</b>	<b>Marraigang</b>	<b>Burrugin</b>	<b>Wiritjiribin</b>	<b>Ngoonungi</b>	<b>Parra'dowee</b>
January– March	April–June	June–July	July–August	September– October	November– December
hot and dry	wet becoming cool	cold and frosty	cold and windy	cool becoming warm	warm and wet

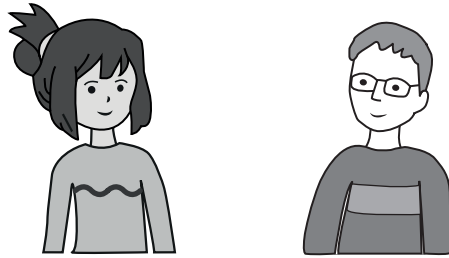
My sister's birthday occurs in the season after my birthday. However, our birthdays are almost six months apart.

In which season is my sister's birthday?

- A** Burran
- B** Marraigang
- C** Burrugin
- D** Wiritjiribin

18

Some people think that being brave means not being afraid of anything. But this is wrong. A brave person is someone who does whatever they need to do even if they do feel afraid.



**Xinyi:** “Simon is afraid of flying but he got on the plane anyway, because there was no other way to visit his grandparents – he must be a brave person!”

**William:** “Actually, anyone who gets on an aeroplane must be brave.”

If the information in the box is true, whose reasoning is correct?

- A Xinyi only
- B William only
- C both Xinyi and William
- D neither Xinyi nor William

19 James and four of his friends are all collecting from the same set of cards. The cards are sold in packs of 15 for \$10 each, but the shop sells 3 of the packs for \$25. James and his friends each have \$20, so they decide to put the money together and buy as many packs as possible. They will then share the cards out equally among themselves.

How many more cards does James get by buying them with friends rather than by himself?

- A 3
- B 6
- C 9
- D 12

- 20 Leonie has just been listening to the radio. She says: “The weather forecast said we are in for a very hot spell. I don’t think it will be as hot as last December though. Last December was the hottest December ever, so it is unlikely to be as hot as it was then.”

Which one of these statements, if true, most **weakens** Leonie’s argument?

- A The average temperatures in December have been rising steadily over the last 5 years.
- B It is difficult to make accurate long-term predictions about the weather.
- C Temperatures are often even hotter in January than they are in December.
- D Weather forecasts in newspapers, online, and on TV are also predicting a very hot December.

21

A new system of tunnels has recently been built in the city of Rainville. It is used for car traffic and helps drivers get from one side of the city to the other in a short amount of time. However, when it is raining very heavily, the tunnels are closed to cars and instead function to carry excess rainwater away from the city towards a nearby lake, thus preventing floods from occurring in the city. Otherwise, the tunnels are open twenty-four hours a day, seven days a week.



**Amelia:** “My mother told me she could not drive through the tunnels yesterday evening, because they were closed. It must have been raining.”

**Sheng:** “It is not raining right now, so the tunnels will be open to drivers.”

If the information in the box is true, whose reasoning is correct?

- A Amelia only
- B Sheng only
- C both Amelia and Sheng
- D neither Amelia nor Sheng



- 22** Zig thinks of a five-letter secret word. Mei tries to find out what the word is by saying five-letter words. After each guess, Zig writes down five symbols that correspond to the letters of the guess.

+ means the letter is in the secret word, in the same place.

# means the letter is in the secret word, but in a different place.

- means the letter is not in the secret word.

Mei's guesses and Zig's replies to these guesses are shown in the table below.

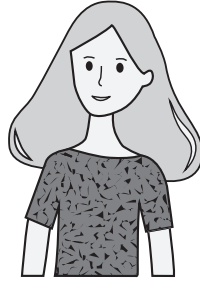
Mei's guess	Zig's replies
FLOOD	- + - - -
CROWN	+ # - - -
BREAD	- # + + -

Which one of the following words did Zig think about?

- A** CLOWN
- B** CREED
- C** CLEAN
- D** CLEAR

23

Horses have eyes on the sides of their heads, which means they can see almost all around them at any time. We think they evolved this way because they are prey animals (predators hunt and eat them), and a wide field of view makes it harder for predators to sneak up on them.



**Lana:** “Chameleons must be prey too, because they also have eyes on the sides of their head.”

Which one of the following sentences shows the mistake Lana has made?

- A There may be some prey animals that have very weak eyesight.
- B There may also be reasons for non-prey animals to have eyes on the sides of their heads.
- C There may be other ways horses evolved to avoid predators, like quick reaction times.
- D There may be predators that succeed in hunting horses despite their wide field of view.

24 Four friends are standing together.

Aaron says: “Only one of us is saying something false.”

Bridget says: “Exactly two of us are saying something false.”

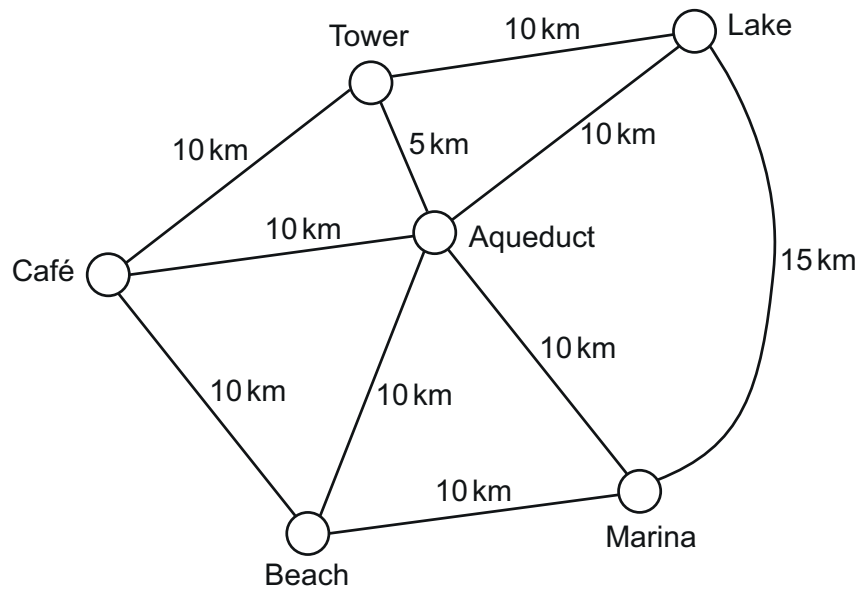
Caitlin says: “Exactly three of us are saying something false.”

David says: “Exactly four of us are saying something false.”

Which one of the friends must be telling the truth?

- A Aaron
- B Bridget
- C Caitlin
- D David

- 25 The sketch map below shows the locations of the six popular tourist attractions in Waterford and the distances between each location.



Eleanor wanted to see as many of the attractions as possible.

She started from the Café and managed to visit four of the other attractions before returning to the Café.

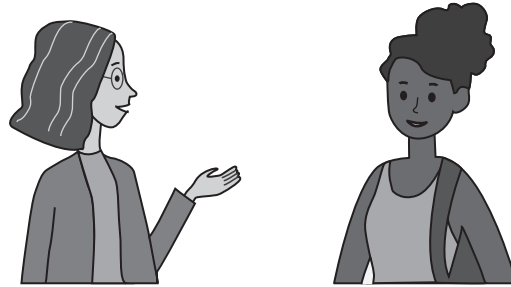
She travelled a total of 50 km.

Which one of the following attractions did Eleanor miss out?

- A Beach
- B Lake
- C Marina
- D Tower

26

The deadline to complete the Geography homework was last Friday. Anyone who didn't complete it on time will have to stay behind after school tomorrow to finish it off.



**Kalinda:** "I know Abby didn't hand in the homework on time, so she'll definitely be staying behind tomorrow."

**Keira:** "Lottie has to stay behind tomorrow, so she must have failed to complete the homework on time too!"

If the information in the box is true, whose reasoning is correct?

- A Kalinda only
- B Keira only
- C both Kalinda and Keira
- D neither Kalinda nor Keira

27 Elise has a set of letter cards, one for each letter of the alphabet.

Each letter card is either red, blue or green.

Elise is using the letter cards to make words.

She makes the words CAT, DOG, DOT, BIT and BAT, and notices that each of these words uses all three colours.

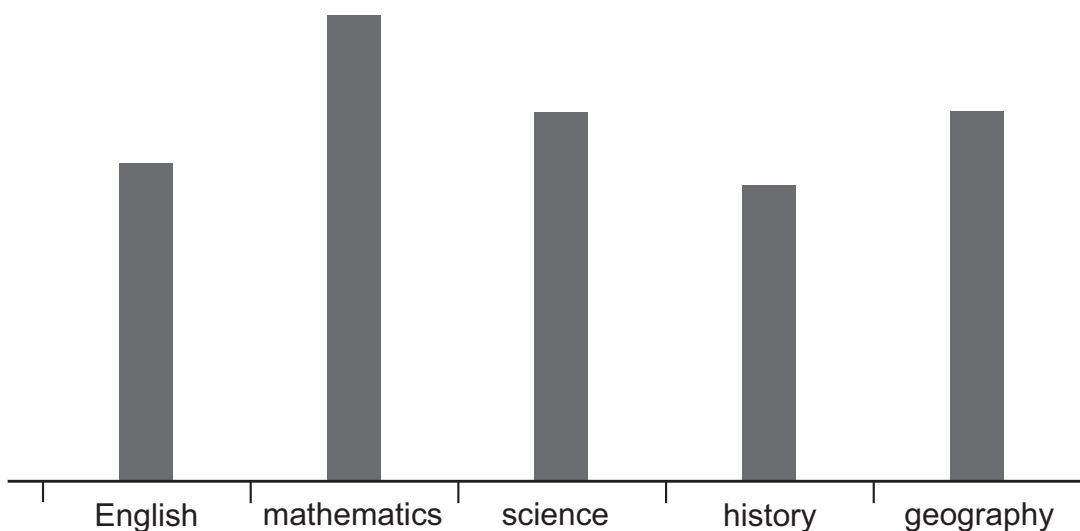
Which one of the following words would also use all three colours?

- A AID
- B BIG
- C CAB
- D TAG

- 28 Four students take tests in English, mathematics, science, history and geography. Their scores are shown in the table.

	<b>Andrew</b>	<b>Bryony</b>	<b>Charlie</b>	<b>Daisy</b>
English	32%	45%	68%	56%
mathematics	58%	61%	92%	82%
science	28%	48%	72%	65%
history	24%	38%	76%	52%
geography	28%	38%	72%	65%

The graph, when correctly labelled, represents the scores of one of the students:



Which student has the results shown in the graph?

- A Andrew
- B Bryony
- C Charlie
- D Daisy

29

Chris and Li Li were both setting up dog-walking services in their local areas. They both discovered that:

- The more people who know about our services, the more people are likely to use them.
- If no one knows about them, then no one will use them.
- If we put leaflets in people's houses, then more people will know about them.



**Rosie:** “Lots of people have started using Li Li’s service recently. She must have been out leafleting houses.”

**Ryan:** “And no one has been using Chris’s service, so he can’t have been posting any leaflets at all.”

If the information in the box is true, whose reasoning is correct?

- A** Rosie only
- B** Ryan only
- C** both Rosie and Ryan
- D** neither Rosie nor Ryan

30 Daniella says: “Did you know that top tennis players can serve the ball at over 220 km per hour? This means the other player has less than 0.25 seconds to see where the ball is and then hit it. This would simply be impossible for a normal human being. I’m telling you, some sportspeople must have superhuman reaction times!”

Which one of these statements, if true, most **weakens** Daniella’s argument?

- A** Tennis players learn to anticipate where a serve is going to go before it is hit.
- B** Only very few tennis players can serve the ball at speeds of over 220 km per hour.
- C** There is quite a range of times within what is usually considered a ‘normal’ reaction time.
- D** Reaction times in most sports are typically more than 0.25 seconds.

- 31** An amusement park opens at 8 am and closes at 3 pm. Tickets must be bought in advance and each ticket gives access to the park for one visitor from a chosen start time. The ticket is valid from the start time for a maximum of three hours. Visitors may arrive at any time during the three hours.

The table shows the number of tickets sold for last Monday.

<b>start time</b>	8 am	9 am	10 am	11 am	12 noon	1 pm	2 pm
<b>number of tickets sold</b>	14	55	42	29	31	57	12

What is the greatest number of visitors that could have been in the amusement park at 12:30 pm?

- A** 60
  - B** 102
  - C** 126
  - D** 168
- 32** Ellen is on board a ship, from which she can see a lighthouse. The lighthouse transmits messages to ships by flashing three coloured lights in different orders. Ellen knows that the possible messages are as follows.

**Safe to dock:** red, yellow, green

**Storm incoming:** blue, yellow, red

**Do not dock:** green, red, yellow

**Another ship nearby:** yellow, blue, green

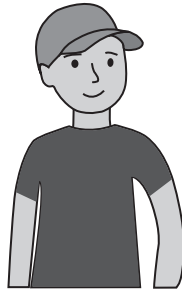
The lighthouse flashes a message, but later Ellen only manages to remember two of the flashed colours, but not the order in which she saw them. One of the colours is red. This allows her to work out which message was conveyed.

What was the message?

- A** Safe to dock
- B** Storm incoming
- C** Do not dock
- D** Another ship nearby

33

A constellation is a group of stars in the night sky, often in the shape of an animal, or another recognisable object. In ancient times, sailors used the positions of the constellations to navigate on the open seas.



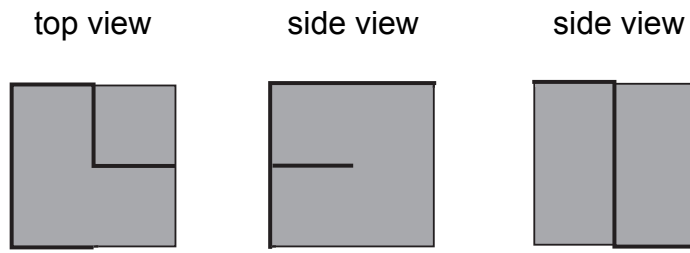
**Amir:** “That must mean that the sailors had to hope they had clear skies at night, otherwise they’d be certain to get lost!”

Which one of the following sentences shows that Amir has made a mistake?

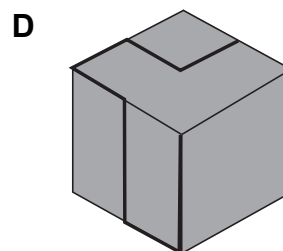
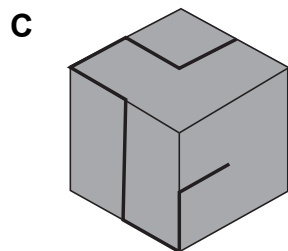
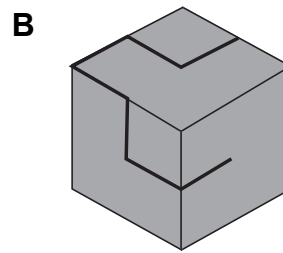
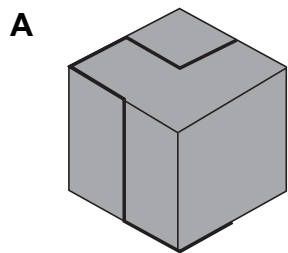
- A** Even if the skies are clear, it might not be possible to see all the constellations.
- B** It may have been more likely to have clear skies in ancient times than it is now.
- C** It may be that ancient sailors had other methods of navigation too.
- D** Ancient sailors may have had other reasons to observe the stars.



- 34 The diagram below shows the top view and two side views of a solid cube with a thick, black wire attached to it.



Which cube does it represent?



- 35** Anita finds a story written in the ancient language of Galearic. She wants to have the story translated into English so that she can read it.

Unfortunately Anita cannot find a translator who can translate from Galearic into English. However, she does know some translators who can translate between different languages as shown in this table:

<b>Translator</b>	<b>Can translate between</b>
Josephine	Spanish, Mandarin
Aadya	Hindi, Italian
Diego	Spanish, Vietnamese
Kyra	Greek, Wiradjuri, Punjabi
Toby	English, Mandarin
Diane	English, Spanish
Kiara	Galearic, Hindi
Ahmad	Bangla, Wiradjuri

But Anita still cannot see a way that the story can be translated into English, even by having it translated more than once.

Which one of the following extra translators would make it possible?

- A** Peter, who can translate between Vietnamese and Italian
- B** Yifei, who can translate between Greek and Galearic
- C** Sung-ho, who can translate between English and Bangla
- D** Monaro, who can translate between Punjabi and Italian

36

Sally is planning to organise a street party. However, the people on her street are often very busy. Unless she is able to get her invitations printed out and posted in good time, then very few people will come to the party.



**Joy:** “If there aren’t many people at the party, we’ll know that Sally didn’t post her invitations in time.”

**Samira:** “If there are a lot of people at the party, we’ll know that she did post her invitations in time.”

If the information in the box is true, whose reasoning is correct?

- A Joy only
- B Samira only
- C both Joy and Samira
- D neither Joy nor Samira

- 37 In a competition, children complete a course which involves swimming, then cycling then running.

child	time (in minutes)		
	swim	cycle	run
Aisling	6.8	24.4	12.2
Bakir	6.5	26.8	14.8
Caleb	6.3	24.1	13.2
Dylan	6.4	26.4	13.6
Eli	5.8	24.8	12.0
Felix	6.5	25.0	14.5
Grace	5.6	24.2	12.3
Hudson	6.0	26.0	12.4
Isla	6.0	25.6	12.9
Jai	6.2	29.0	12.8

A team of three children is chosen from these ten children to take part in a competition next Saturday. One child will swim, one will cycle and another will run. The team will consist of the fastest swimmer, the fastest cyclist and the fastest runner.

Assuming that all children complete their part of the course in the same time as they did previously, what will be the total time taken for the team of three to complete the course?

- A 41.7 minutes
- B 41.9 minutes
- C 42.1 minutes
- D 42.4 minutes

38

Trisha is trying to decode a secret message from her friend Brianna. She doesn't know the code, so she has to try to guess at what it might be.

The coded message reads: SFB HDIG KCUTDF FZXROOZ



**Trisha:** "I think that the first word of the message might be 'the'. But that would mean that the letter 'E' only appears once in the message, which would be unusual, because 'E' is a very common letter."

Which one of the following sentences shows that Trisha has made a mistake?

- A The first word of the original message might not actually be 'the'.
- B Brianna's message might only contain one letter 'E', even if that is unusual.
- C The code might contain numbers and other symbols, not just the letters of the alphabet.
- D Letters in the message might not always be represented by the same letters in the code.

39 The girls' 5-a-side soccer team includes two pairs of sisters. Whenever they have a photo taken they always make sure that no girl is standing next to her sister.

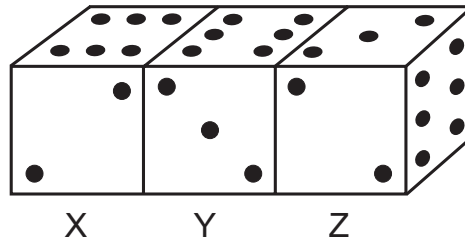
The order of the players on one photo is: Jannali, Alinta, Medika, Shakira, Killara

On another photo the order of the players is: Alinta, Killara, Jannali, Medika, Shakira

Which pair of players on the team must be sisters?

- A Alinta and Shakira
- B Alinta and Jannali
- C Medika and Jannali
- D Medika and Killara

40 This diagram shows a view of three dice, labelled X, Y and Z, placed together in a row.



They are standard dice, with all pairs of opposite faces adding up to 7, and all three dice are identical.

What is the sum of the two hidden faces of dice X and dice Y that are touching each other face to face?

- A 5
- B 6
- C 8
- D 9

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