


UNIT 7 THINK AGAIN!

IN THIS UNIT YOU

- learn language to speculate and make deductions
- read an article about geniuses
- listen to a short lecture about child prodigies
- talk about what a picture might show
- write about whether we agree or disagree with an article
- watch a video about extraordinary achievements

A  Work in pairs. Take the quiz.



ARE YOU A RIGHT-BRAIN

or

LEFT-BRAIN THINKER?



Read the questions and check **Yes** or **No**.

- ▶ Add up the number of green boxes and red boxes.
- ▶ Look at your score to find out what kind of thinker you are!

Yes No


- | | | | |
|----|--------------------------|--------------------------|--|
| 1 | <input type="checkbox"/> | <input type="checkbox"/> | I wear a watch. |
| 2 | <input type="checkbox"/> | <input type="checkbox"/> | I like to draw. |
| 3 | <input type="checkbox"/> | <input type="checkbox"/> | I'd rather draw a map than give someone directions. |
| 4 | <input type="checkbox"/> | <input type="checkbox"/> | When I get something new, I usually read the instructions. |
| 5 | <input type="checkbox"/> | <input type="checkbox"/> | I play or would like to play a musical instrument. |
| 6 | <input type="checkbox"/> | <input type="checkbox"/> | I've considered becoming a politician, an artist, or an architect. |
| 7 | <input type="checkbox"/> | <input type="checkbox"/> | I hate following a schedule. |
| 8 | <input type="checkbox"/> | <input type="checkbox"/> | I make "to-do" lists. |
| 9 | <input type="checkbox"/> | <input type="checkbox"/> | I generally do well in math and science. |
| 10 | <input type="checkbox"/> | <input type="checkbox"/> | I've considered becoming a lawyer, a doctor, or a journalist. |

Your score

More **red** boxes: You are more of a left-brain thinker.

More **green** boxes: You are more of a right-brain thinker.



B  Work in groups. Discuss the results of the quiz. Are there more right-brain or left-brain thinkers in your group? What do the quiz questions suggest are some characteristics of left- and right-brain thinkers?

A: Are you a left-brain or a right-brain thinker?

B: Left-brain, according to the quiz.

A: So how many are left-brain, and how many are right-brain?

LIFE SKILLS

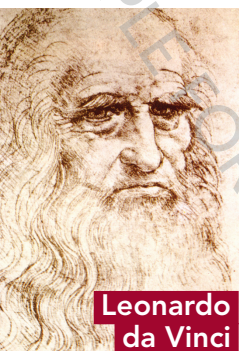
STUDY & LEARNING

Learn how to think more logically

1 READING: distinguishing fact and opinion page 50

Writers often use specific phrases to let the reader know whether something is a fact or an opinion. In addition, opinions are also often expressed through the use of adjectives like *good*, *bad*, *great*, etc. Look for specific phrases, as well as positive and negative adjectives, to identify opinions in a text.

A Look at these people. Do you recognize any of them? What do you think they have in common?



Leonardo da Vinci



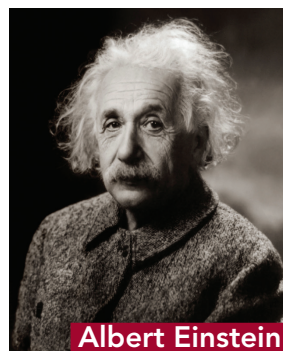
Marie Curie



Stephen Hawking



Helen Keller



Albert Einstein

B Read this article and check your ideas.

BEYOND THE ORDINARY

Everyone agrees that the scientists Albert Einstein and Marie Curie were geniuses, and so was Leonardo da Vinci, who was a scientist, an inventor, a writer, and an artist. Mozart was clearly a genius and what about the incredibly talented scientist Stephen Hawking? Or Helen Keller, the amazing woman who became a writer, even though she was deaf and blind? Are they geniuses? What makes a genius?

According to one definition, a genius has a high IQ. Studies show that normal IQs range from 85 to 115, and a genius has an IQ over 140. However, this seems to me to be a poor definition. "Genius" is a complicated concept, involving many different factors, and intelligence tests usually measure only logical thinking. A better definition of "genius" would include other things, like creativity. The artist Picasso produced thousands of beautiful works of art. Was he a genius?

One very useful definition of "genius" states that originality is the defining factor. A genius puts things together in new ways—ways that ordinary people have never thought of—and creates something new. It might be a new idea, a new work of art, or a new way of working. Geniuses change the world they are born into. That raises another question: Are geniuses born that way?

The writer Malcolm Gladwell has written about geniuses in his book *Outliers: The Story of Success*, and he feels that there is an important factor we often overlook: hard work. "The people at the very top don't just work much harder than everyone else," he says. "They work much, much harder." You have to be born with talent, but then you have to develop that talent. According to research, the minimum for this is 10,000 hours, about three hours a day for ten years. By studying examples ranging from Mozart to Bill Gates, Gladwell shows that they all did an enormous amount of work before becoming successful. So, while talent and IQ are crucial, it seems that geniuses work very hard to achieve their success.

C Read these sentences and phrases from the article in Exercise B. For each one, decide if it expresses a fact or an opinion. Underline the word(s) or phrase(s) in the article that helped you decide.

- | | |
|---|--|
| 1 the incredibly talented scientist Stephen Hawking | 5 a better definition of "genius" would include other things |
| 2 Helen Keller, the amazing woman who ... | 6 one very useful definition of genius |
| 3 Studies show that normal IQs range from 85 to 115 | 7 he feels that there is an important factor we often overlook: hard work |
| 4 this seems to me to be a poor definition | 8 According to research, the minimum for this is 10,000 hours |
| | 9 By studying examples ranging from Mozart to Bill Gates, Gladwell shows ... |

D Work in pairs. Think of other geniuses you know of. Which one do you admire the most? Why?

2 GRAMMAR: modals of deduction: must, can't, might/may/could

A  **36 LANGUAGE IN CONTEXT** Listen to the conversation below. Do Ben and Carson get the right answer?

Carson: Hi, Ben. What are you doing?

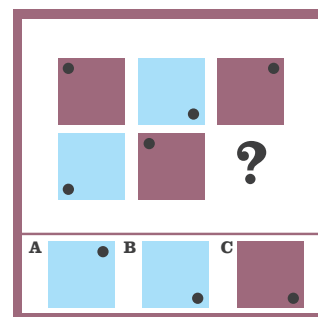
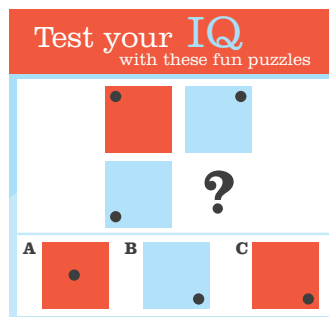
Ben: Oh, hi, Carson. I'm just doing some logic puzzles in this magazine. I'm not doing very well, though!

Carson: Let me see. Which symbol is missing? Hmm ... OK. Well, the missing square **must** be red.

Ben: Yes, that's what I think. So the answer **can't** be B. It **could** be A, though.

Carson: No, it **can't** be A. Look where the dot is. It **must** be on the right at the bottom. The answer **must** be C.

Ben: Oh, yes. You're right. Hey, you're good at these things! Let's try the next question. Oh, this one is different. I think it **might** be B, but it **could** be A ...



NOTICE!

Look at the modal verbs in bold. What form of the verb always follows a modal?

B ANALYZE Read the conversation in Exercise A again.

Form Complete the table with examples from Exercise A.

Function		
subject + modal + base form	<input type="checkbox"/>	The missing square (1) _____ be red.
		It (2) _____ be on the right at the bottom.
		The answer (3) _____ be C.
	<input type="checkbox"/>	The answer (4) _____ be B.
		No, it (5) _____ be A.
	<input type="checkbox"/>	It (6) _____ be A.
		I think it (7) _____ be B.

Function Read the rules below and write the number of each function in the correct place in the table.

- We use this to say that it's impossible that something is true.
- We use this to say that we are sure that something is true.
- We use this to say that something is possibly true.

WATCH OUT!

- ✓ It might be the last one.
- ✓ It could be the last one.
- ✗ It can be the last one.

C PRACTICE Read the first sentence in each pair. Write an appropriate modal to complete the second sentence.

- | | |
|---|--|
| 1 You're expecting Nicole to call.
The phone rings.
That _____ be Nicole. | 4 You don't think it's possible that John is sick.
John _____ be sick. |
| 2 You are certain the answer isn't D.
The answer _____ be D. | 5 You are sure this is Emma's house.
Emma _____ live here. |
| 3 It's possible your cell phone is at home.
My cell phone _____ be at home. | 6 It's the middle of summer. You don't believe it when
someone says it's snowing.
It _____ be snowing! |

D  **NOW YOU DO IT** Work in pairs. For each puzzle, decide what comes next.

- red, orange, yellow, green, ?
- 1, 4, 9, 16, ?
- M, T, W, T, ?
- January, March, May, July, ?
- 0, 1, 1, 2, 3, 5, 8, ?
- M, V, E, M, J, ?

HOW TO SAY IT

What does "V" stand for?
I think it stands for ...
What do they all have in common?
They're all ...
The answer might be ...
No, it can't be ... because ...
I think it must be ...

3 VOCABULARY: adjective suffixes *-ful, -less*



We often use a noun (e.g., *pain*) + a suffix (e.g., *-less*) to make an adjective (e.g., *painless*). We often use *-ful* to form adjectives that mean “with” or “full of” and *-less* to form adjectives that mean “without.”

A Complete each sentence with the correct adjective formed from the noun in parentheses.

- 1 I was never very good at math because I was _____. (care)
- 2 Some kids get into trouble because they are _____ and they take too many risks. (fear)
- 3 Intelligence is _____ on its own – you need to understand people, too. (use)
- 4 Very intelligent people are often lonely and this can be _____ for them. (pain)
- 5 Einstein had a very _____ brain. (power)
- 6 I feel _____ about the future. I think good things will happen! (hope)
- 7 Nadine is very _____ and always considers her friends’ feelings. (thought)
- 8 Most people believe that without government, we would have a very _____ society. (law)

B Choose *Agree* or *Disagree* for each statement.

- 1 Logic is useless for understanding other people and their emotions. *Agree / Disagree*
- 2 Highly intelligent people are often thoughtless. *Agree / Disagree*
- 3 We shouldn’t be fearful of the future. *Agree / Disagree*
- 4 Life shouldn’t be painless. We learn from difficult experiences. *Agree / Disagree*

C Work in pairs. Compare your answers with your partner’s. Explain your choices.

4 LISTENING: a short lecture

A You are going to listen to a lecture. Before you listen, look at the picture and try to guess what the lecture is going to be about.



B **37** Now listen to the lecture and check your ideas.

C Listen again and complete the notes.

D Work in pairs. Discuss these questions.

- 1 Do you think young people today are under a lot of pressure to be successful?
- 2 Do you know someone who had an exceptional talent as a child? What happened to him/her?
- 3 What do you think a child prodigy’s life must be like?

Characteristics of child prodigies

Have (1) _____

Show (2) _____

Alma Deutscher

Age 3: (3) _____

Age 7: (4) _____

Aelita Andre

Age 9 months: (5) _____

Age 4: (6) _____

Tanishq Abraham

At age 7, was (7) _____

Now: (8) _____

Difficulties for child prodigies

Have (9) _____

(10) _____

5 GRAMMAR: tag questions

A  **38 LANGUAGE IN CONTEXT** Listen to the conversation below. What job does Justin want to do?

- Penny:** Justin, I just read an interesting article about brain hemispheres. You're left-handed, aren't you?
- Justin:** Yeah, why?
- Penny:** Well, apparently left-handed people are usually good at math and music. Do you think that's true?
- Justin:** Hmm, interesting ... I guess I am good at math. And I love music! But that can't be true for everyone, can it? I mean, you play in a band, don't you? So you must be good at music. But you aren't left-handed, are you?
- Penny:** You're right. I don't think it's a hard and fast rule. The article just says there are some links between handedness and certain abilities. But people don't always develop them. In fact, you didn't start playing the guitar until recently, did you?
- Justin:** Yeah, although I've always wanted to. And I've been playing the keyboard since I was really little. I would really like to have a career in music, but my dad doesn't like that idea. I should just tell him that I was born to be a rock star, shouldn't I?
- Penny:** Definitely!



NOTICE!

Underline the question phrases at the ends of sentences in the conversation above. Are they *yes/no* or *information* questions?

B ANALYZE Read the conversation in Exercise A.

Function Choose the completions for the rule that are true.

We use tag questions to ...

- confirm information that we are almost certain about.
- check information we're not sure about.
- ask for further information.

Form Complete the table with tag questions from Exercise A.

	Affirmative main verb, negative tag question	Negative main verb, affirmative tag question
main verb be	You're left-handed, (1) _____?	You aren't left-handed, (2) _____?
simple tenses	You play in a band, (3) _____?	You didn't start playing the guitar until recently, (4) _____?
modals	I should just tell him that I was born to be a rock star, (5) _____?	That can't be true for everyone, (6) _____?


For tag questions in other verb tenses, see the Grammar reference on p.152.

C PRACTICE Complete the tag questions.

- You didn't do well on the exam, _____?
- Tomás is really smart, _____?
- We aren't late for the exam, _____?
- Nathan could read when he was three, _____?
- I won't see you tomorrow, _____?
- The bus leaves at 5:30 p.m., _____?
- Claudia got a new car, _____?
- I shouldn't do it like this, _____?

WATCH OUT!

- ✗ It starts at nine, isn't it?
- ✓ It starts at nine, doesn't it?
- ✓ They don't study chemistry, do they?
- ✗ They don't study chemistry, don't they?

D  **NOW YOU DO IT** Work in pairs. Use tag questions to check your knowledge about these areas of your partner's life. Ask other questions to find out more.

- family
- interests
- ambitions
- experiences

You have three brothers, don't you? What are their names?

6 PRONUNCIATION: tag questions

A  **39** Listen to these sentences. In which sentences does the speaker sound certain? In which sentences does the speaker sound less certain?

	Certain	Less certain
1 I'm not late, am I?	<input type="checkbox"/>	<input type="checkbox"/>
2 I'm not late, am I?	<input type="checkbox"/>	<input type="checkbox"/>
3 Today's the 27th, isn't it?	<input type="checkbox"/>	<input type="checkbox"/>
4 Today's the 27th, isn't it?	<input type="checkbox"/>	<input type="checkbox"/>

B  **40** Listen to these sentences and answer the questions.


- In which two sentences does the speaker sound certain? Does the voice go up or down on the tag questions?
 - In which two sentences does the speaker sound less certain? Does the voice go up or down on the tag questions?
- | | |
|---|---|
| 1 We did this wrong, didn't we? | ↓ |
| 2 You're Brazilian, aren't you? | ↑ |
| 3 You didn't work on that project, did you? | ↑ |
| 4 You studied art, didn't you? | ↓ |

C  Work in pairs. Practice saying the tag questions in Exercises A and B.

7 SPEAKING: speculating



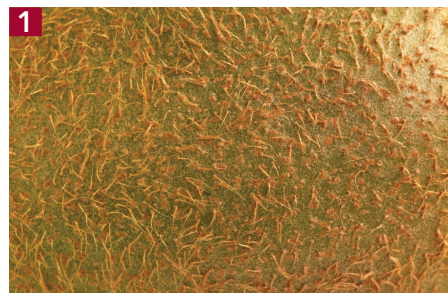
We speculate when we aren't sure about something and have to guess or make a deduction. In order to speculate, we can use modals of deduction and tag questions. We can also use phrases such as *Maybe it's a ...*, *If you ask me, it could be a ...*, and *It looks like a ...* to show we are uncertain.

A  **41** Listen to the conversation. Underline the phrases that the speakers use to speculate about the picture.

- Eli:** Look at this picture. What do you think it is?
Ally: Well, if you ask me, it could be a dry river bed.
Eli: I don't think it can be a river bed. It's the wrong shape. It looks like a tree trunk to me.
Charlie: Let me see. It's part of an animal, isn't it?
Ally: Hmm ... It could be, I guess. Hey, I know! Maybe it's a lizard.
Charlie: No, I don't think so. What about a rhinoceros?
Eli: Of course! It must be a rhino. It's obvious now!



B  Work in pairs. Look at these pictures of everyday things. Speculate about what each picture might be.




HOW TO SAY IT

Speculating

It could be a ..., couldn't it?

Maybe. It looks to me like it might be a ...

It can't be a ..., can it? What about ...?

C  Compare your ideas with another pair. Who has the best ideas?

8 VOCABULARY: improving your brain

A Match the verbs 1–6 with the nouns a–f to make collocations.

- | | |
|-------------|----------------------------|
| 1 explore | a) a solution |
| 2 find | b) (all) the possibilities |
| 3 develop | c) a problem |
| 4 solve | d) myself |
| 5 challenge | e) your abilities |
| 6 learn | f) new skills |

B Complete these sentences with the correct form of the phrases in Exercise A.

- You need to practice regularly to _____ in a new skill.
- I try to _____ to do something new and different every day.
- You should always _____ and consider all the options before making a decision.
- When I have to _____, I try to look at it from different angles.
- I think it's important to _____ to keep your brain active.
- When I have a problem, my friends usually help me _____.

C  Work in pairs. Say which statements in Exercise B you agree with and explain why.

9 WRITING: a for-and-against text

A Read the text. What are the main arguments in favor of varying your study environment? What are the main arguments against it? Which side do you agree with more?



Should you vary your study environment?

Some scientists and neurologists say that to improve your thinking skills, you should vary where and how you work or study. For example, don't always work at your desk. Instead sit in your favorite chair or lie on the sofa, with your family talking around you or even with the TV on! There are several reasons for this theory.

First, the brain works better if it has variety. A variety of stimuli causes the brain to be more alert, so more learning takes place. Another reason is that if you are studying and listening to music at the same time, you are multi-tasking. Asking your brain to do

more than one thing at a time is good brain training. Finally, always studying in the same place is boring, and if you are bored, your level of concentration is lower.

On the other hand, many educators recommend always studying at the same time in the same place for several reasons. First, this creates a routine, and if you have a routine, it is easier to develop the habit of studying for a certain amount of time every day. Second, you have all your books close by and organized in one area. Finally, you can be away from distractions like TV or other people, and many educators believe this is necessary for good concentration.

B Look at this list of arguments for and against the argument "Are video games good for brain training?" Put a check next to the arguments for using video games and an X next to the arguments against it.

C "Are video games good for brain training?" Use these notes to write your for-and-against text:

There is disagreement about whether or not playing video games is a good way to train your brain.

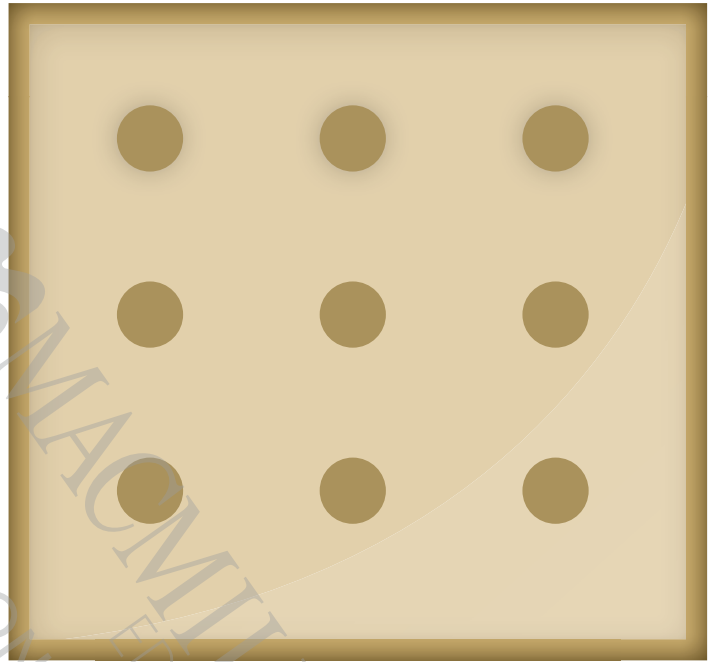
- arguments for (at least three)
- arguments against (at least three)

- ☐ Antisocial activity - little interaction with friends or family
- ☐ Develops problem-solving skills - players have to think of creative ways to solve puzzles or problems
- ☐ Improves hand-eye coordination - in visual games, eyes see images and hands have to react quickly
- ☐ Not enough physical activity - leads to obesity and other physical problems
- ☐ Possible addiction - not enough sleep; poor school work
- ☐ Improves memory - in many games, players have to remember words or images
- ☐ Unbalanced skills development - players don't learn other things such as sports or hobbies
- ☐ Reduces stress - games are fun; playing releases aggression and frustration

THINKING LOGICALLY

- Question your assumptions.
- Approach the problem differently.
- Think of new ideas and test them.

A Do this puzzle. Connect these dots by drawing four straight lines, without lifting your pencil off the paper, and without going back over a line. You have two minutes.



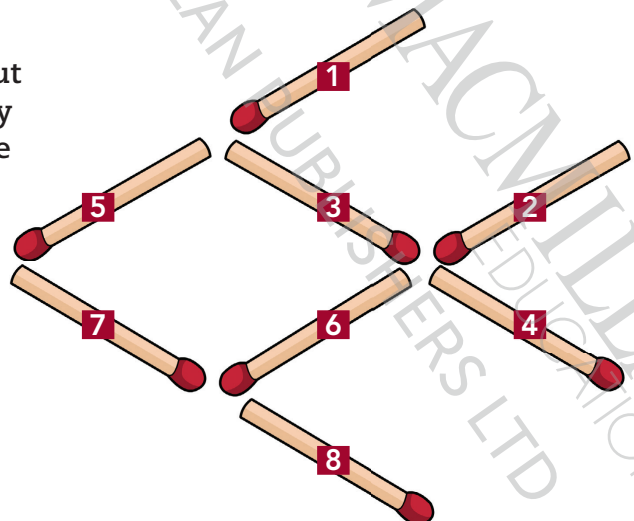
B If you solved the puzzle, great job! If you didn't, it might help you to question your assumptions. To do this, decide whether these sentences about the puzzle are T (true) or F (false).

- 1 The instructions say each line has to start and end on a dot.
- 2 Your lines can go further than the rows of dots.
- 3 Each line has to go through three dots.

T / F
T / F
T / F

C Now try the puzzle in Exercise A again. If you still can't figure out the answer, find someone who has the answer and ask them to show you how to do it.

D Do this puzzle. Look at this fish made out of matchsticks. Move three matchsticks only so that the fish is swimming in the opposite direction. You have one minute.

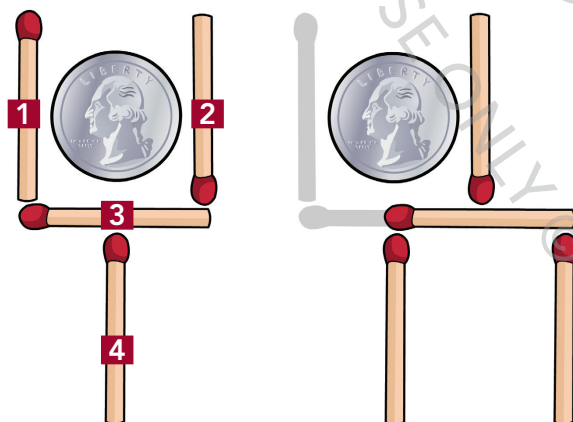


E If you solved the puzzle in Exercise D, read this text and decide if it describes how you think. If you didn't solve the puzzle, read the text and think about how you should approach the puzzle in Exercise D differently.

Logical thinking

There are times in all our lives when we need to think more logically. It might be in a real-life situation, such as making a business decision. Or it might be when we are taking a test or doing a puzzle of some kind. The problem some of us have when it comes to thinking logically is that we think certain limits exist, when in fact they don't. It's all about our assumptions.

We all have a lot of assumptions – things we think are correct, even if there's no reason to. To illustrate, take a look at this well-known puzzle using matchsticks. The coin looks as if it is inside a "glass" formed by




four matchsticks. You have to move just two matchsticks to get the coin outside the glass. You cannot move the coin! It seems impossible ... and it is impossible, as long as you assume that the glass has to stay the same way up. However, the puzzle becomes very easy if you think about making an "upside-down" glass. To do this, all you have to do is move matchstick 3 to the right a little and move matchstick 1 down.

The key to solving this problem is to question your assumptions. And questioning your assumptions is a big part of logical thinking.

Logical thinking is not just about the artificial world of puzzles. This same kind of thinking can be very useful in real life, too. If we aren't careful, we can assume things about ourselves, other people, and the world around us that limit our thinking. By analyzing and questioning our assumptions, we can think more logically and systematically about a problem, and perhaps find solutions that we simply couldn't see before.

F Now try the puzzle in Exercise D again. Use what you learned in the article to help you.

G  Work in pairs. Brainstorm a list of real-life problems and how logical thinking might help solve them. Then explain your ideas to the rest of the class.

Problem: How to get a huge new sofa into your house

How logical thinking might help: It can help you think of different ways, e.g., through the window.

HOW TO SAY IT

Discussing logical thinking

One problem that could be solved using logical thinking is ...

Do you think logical thinking would help if ...?

How would logical thinking help in that situation?

If ..., logical thinking could help you ...



REFLECT ... How can the skill of logical thinking be useful to you in **Self and Society** and **Work and Career**?

Language wrap-up

1 VOCABULARY

Choose the correct words. (15 points)

One of the most (1) *powerful* / *powerless* and (2) *useful* / *useless* techniques for training your brain is visualization. Whether you're trying to (3) *develop* / *learn* abilities you already have, or trying to (4) *develop* / *learn* a new skill, visualization can help you. It can also help you (5) *find* / *solve* a solution to stopping unhealthy habits, such as smoking, when you think you've (6) *explored* / *challenged* all the possibilities and you're feeling (7) *hopeful* / *hopeless*. In fact, visualization can work in any situation where you are trying to (8) *challenge* / *solve* yourself to improve, or if you are trying to (9) *find* / *solve* a difficult problem. The technique involves forming a picture in your mind, like a picture on a movie screen. You have to be (10) *careful* / *careless* to create a really vivid picture of what you want to achieve. Imagine yourself feeling (11) *fearful* / *fearless* and strong. Then add sound and make it come to life. Then, make a small black and white picture of yourself feeling (12) *fearful* / *fearless* and failing. Quickly replace that (13) *painful* / *painless* image with your bright, happy image. Do that five or six times. Now, every time you feel (14) *powerful* / *powerless* and think you are going to fail, the positive image will come to mind. Difficult situations become much less (15) *painful* / *painless* and you are more likely to succeed. Why not give it a try?

11–15 correct: I can use adjectives with *-ful* and *-less* and use collocations connected to improving your brain.

0–10 correct: Look again at the vocabulary sections on pages 72 and 75.

SCORE: /15

2 GRAMMAR

A Complete the conversation with *must*, *can't*, or *might/may/could*. (7 points)

- Andy:** I can't finish this crossword puzzle. I have one more word left. Do you know a country with a five-letter name?
- Kelly:** There (1) _____ be hundreds! It (2) _____ be "China."
- Andy:** No, it (3) _____ be "China" because it begins with the letter I.
- Kelly:** Why didn't you say that? Well, it (4) _____ be "Iran." That only has four letters. It (5) _____ be "Italy."
- Andy:** No. It (6) _____ be Italy because it ends with the letter a.
- Kelly:** Oh! It (7) _____ be "India" then.
- Andy:** Awesome! Thanks.

B Complete the tag questions. (8 points)

- | | |
|---------------------------------------|--|
| 1 They can't solve the puzzle, _____? | 5 She doesn't have an exam today, _____? |
| 2 She's very good at puzzles, _____? | 6 We shouldn't buy that car, _____? |
| 3 You'll help me, _____? | 7 You don't have a motorcycle, _____? |
| 4 We didn't pass the test, _____? | 8 Paula doesn't like dogs, _____? |

11–15 correct: I can use modals of deduction to express degrees of certainty. I can use tag questions to check information.

0–10 correct: Look again at the grammar sections on pages 71 and 73.

SCORE: /15