

(Đề thi có 06 trang)

Read the following article and mark the letter A, B, C, or D on your answer sheet to indicate the correct option that best fits each of the numbered blanks.

KYLE'S FLIPPED CLASSROOM

Last year, Kyle Ford used to daydream through his maths classes while his teacher wrote figures and sums he didn't (1) _____ on the board. Inevitably, the sums he did for homework (2) _____ his exercise book were returned to him covered with red ink, and his marks were always very low.

Last night, Kyle (3) _____ his maths homework - he watched a video about long division. He didn't understand much at first, so he watched it again, (4) _____ playback to think about what it showed. Today, in class, Kyle is doing (5) _____ with a group of three classmates. They help each other with the difficult bits and discuss the answers. The teacher goes round the groups, the teacher wants (6) _____ work and offer extra help if it is needed

Kyle's school now uses a system called the 'flipped classroom' to teach maths and

- Question 1: **A. understand** B. understandable C. understandably D. understanding
- Question 2: A. to **B. in** C. under D. out
- Question 3: **A. did** B. made C. put D. took
- Question 4: A. pause B. which paused **C. pausing** D. to be pause
- Question 5: **A. long division sums** B. long sums division
 C. sums division long D. division sums long
- Question 6: A. checking **B. to check** C. to checking D. check

Read the following leaflet and mark the letter A, B, C or D on your answer sheet to indicate the option that best fits each of the numbered blanks from 7 to 12.

PROMOTE MENTAL WELL-BEING AT HOME!

Nurturing Your Mind and Spirit

Taking care of our mental health is just as important as our physical health, which helps us (7) _____ stress, build resilience, and lead fulfilling lives.

Facts and Figures

- Nature's Impact: Studies show that spending time outdoors can significantly reduce stress(8) _____ However, many people feel they lack access to green spaces.
- Screen Time Concerns: Excessive daily screen time is linked to increased anxiety and depression. (9) _____ spending too much time on the phone screen, why don't we go outside and get some fresh air?

Positive Actions You Can Take

- Designate a cozy corner in your home for reading, meditation, or simply unwinding. Make it inviting with soft lighting, plants, and comfortable seating.
- Start a gratitude journal! Write down three things you're thankful for each day to cultivate a positive mindset.
- Make time for meaningful (10) _____ with family and friends. **Connect** with (11) _____ **regularly help** (12) _____ your support network and combat feelings of isolation.

- Question 7. **A. cope with** B. put up with C. agree with D. begin with

e. Furthermore, the addictive nature of short-form content can lead to excessive screen time, negatively impacting physical health and social interactions.

A. b - a - c - d - e

B. b - d - c - a - e

C. d - a - c - e - b

D. a - d - c - e - b

Question 17:

a. The cell phone has changed our lives in many ways, and that is the reason why I think it is the most important invention.

b. I also video chat and send emails. It is much quicker than writing a letter.

c. I use my cell phone for entertainment purposes, such as watching movies or listening to music. I do not get bored because I can do everything on my cell phone.

d. I think the cell phone is the most important invention in modern times because it has changed our lives in many ways. For example, I use it to talk to my friends and family. I sent text messages or make phone calls.

e. My cell phone has changed the way I do my homework. For example, I can use it to find information on the internet for my history class.

A. d - b - c - e - a

B. d - c - a - b - e

C. d - a - e - b - c

D. d - e - b - c - a

Read the following passage about effective English language learning and mark the letter A, B, C or D on your answer sheet to indicate the option that best fits each of the numbered blanks from 18 to 22.

Learning a new language, especially English, can be both challenging and rewarding. To maximize your language learning potential, it's essential to adopt effective strategies. (18) _____. By understanding your learning style and setting clear goals, you can create a personalized learning plan.

One of the most effective ways to improve your English is through consistent practice. (19) _____. This could involve reading books, articles, or news, watching movies or TV shows, or listening to English songs or podcasts.

To enhance your speaking skills, it's crucial to engage in regular conversation practice. (20) _____. Joining language exchange groups or finding a language partner can provide opportunities to practice speaking and receive feedback.

While practice is essential, it's equally important to learn correct grammar and vocabulary. (21) _____. Using grammar books, online resources, or language apps can help you master the rules of English grammar. In conclusion, effective English language learning requires a combination of consistent practice, strategic learning, and a positive mindset. (22) _____. By embracing these strategies, you can achieve your English language goals and open up new opportunities.

Question 18. A. However, learning a new language can be time-consuming.

B. It is important to identify your strengths and weaknesses.

C. Many language learning apps are available to help you practice.

D. English is the most widely spoken language in the world.

Question 19. A. Immerse yourself in the language as much as possible.

B. It's important to set realistic goals for your language learning journey.

C. Learning grammar rules can be tedious, but it's necessary.

D. Speaking English fluently requires a lot of practice.

Question 20. A. Speaking English fluently requires a lot of practice.

B. It's important to find a language learning method that suits your style.

C. Reading English books and articles can improve your vocabulary.

D. Listening to English songs and podcasts can help you improve your pronunciation.

Question 21. A. It's important to find a language learning method that suits your style.

B. Reading English books and articles can improve your vocabulary.

C. Listening to English songs and podcasts can help you improve your pronunciation.

D. Grammar is the foundation of any language.

- Question 22.** A. In conclusion, learning a new language can be a challenging but rewarding experience.
B. Therefore, it's important to stay motivated and persistent.
C. However, don't be afraid to make mistakes.
D. By setting clear goals and working hard, you can achieve your language learning goals.

Read the following passage and mark the letter A, B, C, D on your answer sheet to indicate the best answer to each of the following questions from 23 to 30.

If you're new to running, or new to marathons, you might be worried about or even **fearful** of the distance. And these feelings are completely understandable, given the fact that more than 42 kilometres is a very long way. However, more and more people are taking on this challenge every year, and for very good reasons.

Obviously, running such a long distance requires a lot of training, and the more you train, the more your endurance will be **enhanced**. And of course, as you become more physically active, your heart and muscles will be stronger, your blood circulation will improve, and you will most likely get in shape in no time. Additionally, there are also mental and social benefits such as feeling less stressed and more energized as well as having the chance to meet and establish meaningful relationships with other people.

If you think about it, running a marathon is also a chance for personal development. Everyone has at least one fear or insecurity, and for many people, completing a marathon race can seem like an extremely daunting or even impossible task. Of course, it's true that **this** is a big challenge that requires commitment and perseverance. **That being said, every time you step outside of your comfort zone and accomplish something new, you will grow stronger and become more confident.**

Sometimes, you can actually help many others when you run a marathon. Many runners now combine their marathon goal with the goal of helping others by participating in races that raise money for charity. Besides, running in such marathon races will most likely give you all the motivation you need to get through the exhausting 42-kilometer run. After all, it's quite difficult to quit when you know that you are giving help to people in need.

(Adapted from active.com)

Question 23: According to the passage, all of the following are benefits of running a marathon EXCEPT _____.

- A. You will be able to improve your blood circulation and quickly get in shape.
B. Your endurance will start to improve as you train harder and harder.
C. Your muscles will be strengthened since you are more active.
D. You will feel less stressed when meeting other people.

Question 24: The word "fearful" in paragraph 1 could be best replaced by _____.

- A. scary **B. afraid** C. anxious D. frightening

Question 25: The word "enhanced" in paragraph 2 is OPPOSITE in meaning to _____.

- A. preserved B. augmented **C. weakened** D. disseminated

Question 26: The word "this" in paragraph 3 refers to _____.

- A. personal development B. insecurity **C. completing a marathon** D. challenge

Question 27: Which of the following best paraphrases the underlined sentence in paragraph 3?

A. Every time you leave your comfort zone and achieve something new, you will become stronger and more confident.

B. Each time you move outside your comfort zone and accomplish something odd, you will grow more resilient and confident.

C. Whenever you step outside your comfort zone and succeed in something different, you will feel a sense of superiority.

D. Every time you venture beyond your comfort zone and do something unique, you will grow stronger and become less confident.

Question 28: Which of the following is TRUE according to the passage?

- A. If you want to run a marathon, you need to commit and persevere.
- B. When you complete a marathon, you will no longer have any fear.
- C. Most runners will not run marathons that do not raise money at all.
- D. You cannot complete a marathon if you do not want to help others.

Question 29: In which paragraph does the writer mention the physical benefits of running?

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

Question 30: In which paragraph does the writer discuss personal growth opportunities that come from running a marathon?

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

Read the following passage about and mark the letter A, B, C, D on your answer sheet to indicate the best answer to each of the following questions from 31 to 40.

Some people look at an equation and see a bunch of complicated numbers and symbols while others see beauty [I]. Now, thanks to a new tool created at Carnegie Mellon University, anyone can now translate the abstractions of mathematics into beautiful and instructive illustrations [II]. This exciting new tool is named Penrose after the mathematician Roger Penrose, who is famous for using diagrams and other drawings to communicate complicated mathematical ideas [III]. Penrose enables users to create diagrams simply by typing mathematical expressions and letting the software do the drawing [IV].

Unlike a graphing calculator, these aren't **restricted** to basic functions, but can be complex relationships from any area of mathematics. "Some mathematicians have a talent for drawing beautiful diagrams by hand, but they vanish as soon as the chalkboard is erased," said Keenan Crane, an assistant professor of computer science and robotics. "We want to make this expressive power available to anyone."

Diagrams are often underused in mathematical communication, since producing high-quality illustrations is beyond the skill of many researchers and requires a great deal of time and effort. Penrose addresses these challenges by letting diagram-drawing experts turn their knowledge about creating diagrams into computer codes so that other users can access this capability using familiar mathematical language and a computer. "We started off by asking: 'How do people translate mathematical ideas into pictures in their head?'" said Katherine Ye, a Ph.D. student in the Computer Science Department who is involved in the development of Penrose. "The **secret sauce** of our system is to empower people to easily 'explain' this translation process to the computer, so the computer can do all the hard work of actually making the picture."

Once the computer learns how the user wants to see a mathematical object visualized – a vector represented by a little arrow, for instance, or a point represented as a dot – it uses these rules to draw several candidate diagrams. **Users can then select and edit the diagrams they want from a gallery of possibilities**. A special, simple-to-learn programming language was also developed so that **they** can easily convey the ideas in their minds to the Penrose system, Crane said. "Mathematicians can get very picky about notations," he explained. "We let them define whatever notation they want, so they can express themselves naturally."

The researchers will present Penrose at the SIGGRAPH 2020 Conference on Computer Graphics and Interactive Techniques, which will be held this July. "Our vision is to be able to dust off an old math textbook from the library, drop it into the computer and get a beautifully illustrated book - that way more people understand," Crane said, noting that Penrose is a first step toward this goal.

(Adapted from sciencedaily.com)

Question 31: Where in paragraph 1 does the following sentence best fit?

For many, the elegance of mathematical concepts often goes unnoticed amidst the complexity.

- A. [I]
- B. [II]
- C. [III]
- D. [IV]

Question 32: The word "restricted" in paragraph 2 is OPPOSITE in meaning to _____.

- A. contained
- B. expanded
- C. confined
- D. enclosed

Question 33: The phrase "secret sauce" in paragraph 3 could be best replaced by _____.

- A. unexpected benefit B. mysterious feature C. unnatural ability D. special element

Question 34: According to the passage, which of the following is NOT mentioned as a feature or benefit of the Penrose tool?

- A. It allows users to create diagrams from mathematical expressions.
B. It can produce high-quality illustrations without requiring advanced drawing skills.
C. It enables users to communicate mathematical ideas using a programming language.
D. It can automatically generate solutions to complex mathematical problems.

Question 35: The word “they” in paragraph 4 refers to _____.

- A. users B. diagrams C. possibilities D. ideas

Question 36: Which of the following best summarizes paragraph 3?

- A. Penrose allows users to create high-quality diagrams quickly without needing artistic skills.
B. Diagrams in mathematics are often underused due to the time required to create them.
C. Penrose enables users to translate mathematical ideas into diagrams using expert knowledge and computer codes.
D. Katherine Ye discusses the challenges mathematicians face when trying to visualize complex ideas.

Question 37: Which of the following is NOT TRUE according to the passage?

- A. Mathematical diagrams that are drawn by hand on chalkboards are not long-lasting.
B. Diagrams are usually not widely used to illustrate or communicate mathematical ideas.
C. Penrose uses common mathematical rules to draw diagrams for a mathematical object.
D. Penrose’s developers want to make math easier to understand by using illustrations.

Question 38: Which of the following best paraphrases the underlined sentence in paragraph 4?

- A. Users can browse and alter the diagrams they like from a variety of choices.
B. Users can create and adjust the diagrams they desire from a selection of examples.
C. Users can choose and modify the diagrams they prefer from a collection of options.
D. Users can view and customize the diagrams they wish to use from an assortment of images.

Question 39: Which of the following can be inferred from the passage?

- A. Hand-drawn diagrams are not as beautiful and easy to understand as digital diagrams.
B. In general, mathematicians are not very good at remembering and defining notations.
C. How a mathematical object should be visualized varies from person to person.
D. Almost all people consider traditional math textbooks to be extremely boring.

Question 40: Which of the following best summarizes the passage?

- A. The development of Penrose by Carnegie Mellon University aims to replace traditional graphing calculators with a tool that can only produce basic mathematical functions.
B. Penrose enables mathematicians to draw by hand and provides them with a programming language to express their ideas naturally.
C. Penrose is a new tool that allows users to create complex mathematical diagrams easily, enhancing mathematical communication and understanding.
D. The researchers at Carnegie Mellon University are focusing on the history of mathematical diagrams and their importance in education.

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