

## 1.4 如何為英文部分備考

英文部分包括57道選擇題，評估修訂/校訂和閱讀理解技巧。這些題符合**紐約州學習標準**。下面各頁提供關於回答修訂/校訂題和閱讀理解題的小建議。

### 修訂/校訂A部分概述

這部分試題評估的語言技能是根據7年級「紐約州學習標準」語言部分，以及在7年級之前的年級講授的技能或採用的標準，例如「語言漸進技能」。每個問題指示你讀一個句子、一些句子或一個自然段（句子標有號碼）。然後要求你回答與語言或標點規範相關的問題。例子可以包括：

- 選出對於一個錯誤的最佳更正
- 找出有錯誤的句子
- 把句子合併或修改句子的一部分，改善寫作



### 小建議：修訂/校訂A部分

#### 首先，看提問部分。

- 多數而言，先看提問部分，而不是先看文章。這樣你就知道看文章時，應當找哪一類的問題。

#### 然後，閱讀方框裡的文章，標記你察覺到的問題，同時注意時間。

- 有沒有因語言運用錯誤或標點錯誤而造成文理不通的單詞、短語或句子？
- 文章中有沒有哪個部分可以寫得更清晰、凝練或精確？
- 當你注意到一處問題時，馬上在文中做記號。這可以幫你選出答案選項。
- 謹記：應圍繞提問中的特定主題做記號。



- 在測驗日之前，計劃好你將在A部分花多少時間；這將幫助你在測驗當天高效地回答每個問題。

## 修訂/校訂A部分試題樣本

### Sample 1: Select the best correction/s for an error (or errors).

Read this paragraph.

(1) With its luscious trees and grassy fields stretching like a green ribbon across Manhattan, New York City's Central Park is a natural oasis amid the bustling city. (2) While more than 25 million people visited the park each year, they are also a temporary home to an abundance of migratory birds. (3) During the spring and fall migrations, the park becomes a bird watcher's paradise, prompting scores of avid birders with binoculars in hand to flock to it. (4) More than 270 species of birds, including swallows, thrushes, and at least 25 different species of warblers, have been observed making the park their home in the big city.

How should the paragraph be revised?

- A. Sentence 1: Change **its** to **their**, AND change **is** to **was**.
- B. Sentence 2: Change **visited** to **visit**, AND change **they are** to **it is**.
- C. Sentence 3: Change **becomes** to **became**, AND change **it** to **them**.
- D. Sentence 4: Change **have been** to **had been**, AND change **their** to **its**.



為了辨識出本段的最佳修訂，當你讀本段句1時，讀第一選項中列出的可能的更改。如果不需要做那一項更改，則繼續讀每個句子和答案選項直至你找出正確答案。

## Sample 2: Identify a sentence with an error.

Read this paragraph.

(1) Madison Square Garden is the oldest sports arena in the New York City area, having opened in 1968. (2) The construction of the Garden caused controversy when portions of the iconic Pennsylvania Railroad Station were demolished, leading to the creation of a commission dedicated to preserving New York City's historic landmarks. (3) Although the Garden is home to major sports teams and is a frequent host of major concerts, city officials are concerned that it stands in the way of expanding and modernizing Pennsylvania Station, which operates beneath the arena. (4) In 2013, the city council voted to give the owners of Madison Square Garden a 10-year operating permit, meaning that Madison Square Garden may need to relocate by 2023.

Which sentence should be revised to correct an error in sentence structure?

- E. sentence 1
- F. sentence 2
- G. sentence 3
- H. sentence 4



為了辨識出這個句子，仔細閱讀，同時注意時間；不要只是略讀。錯誤可能在該段的任何地方。



請注意，該錯誤是針對句子結構，即它是關於怎樣在句中置放單詞和短語從而表達（體現）意思之間的關聯。

### Sample 3: Improve the writing by combining sentences or revising part of a sentence.

Read these sentences.

- (1) Whales are the giants of the ocean, and they spend their lives in underwater song.  
(2) They use their voices to attract a mate, call out to one another, and help navigate new environments.

What is the best way to combine the sentences to clarify the relationship between the ideas?

- A. Whales are the giants of the ocean, spending their lives in underwater song, using their voices to attract a mate, calling out to one another, and helping navigate new environments.
- B. Whales, the giants of the ocean, spend their lives in underwater song, use their voices to attract a mate, call out to one another, and help navigate new environments.
- C. Whales are the giants of the ocean, spend their lives in underwater song, use their voices to attract a mate, call out to one another, and help navigate new environments.
- D. Whales, the giants of the ocean, spend their lives in underwater song, using their voices to attract a mate, call out to one another, and help navigate new environments.



想要合併句子，問問你自己

1. 有沒有任何重複的單詞或意思，可以取而代之只用一次？
2. 怎樣將不同的意思聯結起來？句子體現的是原因和結果、相反意思、連續等等嗎？

#### Sample 1 Explanation

**(B)** Sentence 2 of the paragraph should be revised to correct the errors in verb tense and pronoun agreement. The paragraph is in the present tense, so the past tense “visited” needs to be changed to “visit.” Additionally, the pronoun “they” needs to be changed to the pronoun “it.” The pronoun refers to “the park,” which is a singular noun; it does not refer to “people,” which is plural. Option B is correct because the revisions in the option correct these errors.

#### Sample 2 Explanation

**(E)** Sentence 1 of the paragraph should be revised to correct an error in sentence structure. Specifically, the sentence should be revised to correct a misplaced modifier. As the sentence is written, the phrase “having opened in 1968” incorrectly modifies “the New York City area” instead of modifying “Madison Square Garden.” The correct placement of the phrase would change the beginning of sentence 1 to “Madison Square Garden, having opened in 1968, . . .” Option E correctly identifies sentence 1 as having an error in sentence structure.

#### Sample 3 Explanation

**(D)** Option D shows the best way to combine these sentences clearly and precisely because it shows the relationship between the key ideas of whales spending their lives in underwater song and the practical uses of their song.

## 修訂/校訂B部分概述

B部分試題評估你對文章的閱讀能力，以及看完後提高寫作整體質量的決策能力。這些文章展現的主題包括歷史事件和時事，人物、地方和技術，以及生物學、物理學和社會學現象。每個句子都標有號碼，以便你迅速找到並參考文中相應部分。

文章中可能有錯誤，如

- 語言運用不當
- 缺少支持說法的細節，或文中支持的細節實無必要
- 缺少過渡詞、短語或句子，或運用不當
- 缺少開端的引導或總結陳述，或這類陳述不清晰
- 混亂的或不合邏輯的文章組織結構
- 與語言和寫作標準相關的其他錯誤



### 小建議：修訂/校訂B部分

**首先，仔細閱讀文章，同時注意時間；不要略讀。**

- 你需要理解作者的目的、中心思想和文中的支持說法的細節，以便回答怎樣更好地行文和組織文章的相關問題，這要求細讀。
- 你可能注意到了文中似乎有混亂的、不合邏輯的、沒有必要的、組織結構不當的或總體來講文理不通的句子和段落。
- 請注意：做B部分時，閱讀文章和提問部分的順序有別於做A部分。做A部分時，你應先閱讀提問部分。做B部分時，你應先閱讀文章。

**然後，仔細閱讀每個問題，同時注意時間。**

- 回到文中查閱，並重讀提問部分提及的相關句子或段落。
- 你可能也需要略讀提問中所涉句子的前一句和後一句。
- 考慮每個答案選項，有必要（且時間允許）時重讀文章。決定那個選項是否代表最佳修訂。



- 在測驗日之前，計劃好你將在B部分花多少時間；這將幫助你在測驗當天高效地回答每個問題。

## Game Night

(1) Some people think that board games are outdated and boring, unable to provide much entertainment to today's electronic-savvy teens. (2) But opening a cardboard box full of colorful and sometimes elaborate game pieces can offer a refreshing experience, one that cannot be matched by a video game controller and headset. (3) Playing board games is really quite fun.

(4) Board games have exploded in popularity in the past several years as people have discovered how entertaining and interesting a complex or strategic game can be. (5) In the board game Ticket to Ride, players compete against one another. (6) The goal is to create a long railway that connects destinations on a map. (7) This requires collecting resources and building rail lines in strategic places. (8) The game encourages players to think in new ways, and the brain gets exercise that it needs in order to grow.

(9) Playing board games with others can also help bring people together. (10) When you take part in a board game, you get to know the other players. (11) People separated by generations can find common ground across the table from one another when they are all enjoying the same board game. (12) In addition, playing board games can often encourage discussion among players about a variety of topics. (13) Some games are even developed as learning games and aim to teach players about a topic as they play. (14) In a world where digital interactions tend to occur more frequently than true face-to-face interactions, coming together in person to enjoy a board game can be a fun way to maintain or create connections with other people.

(15) In addition to helping people develop relationships, playing board games gives people an opportunity to hone skills that apply to real life. (16) Competitive board games challenge people to compete and to use strategies to outwit one another. (17) Cooperative board games require players to collaborate and to use their individual strengths to achieve a common goal. (18) The act of playing almost any board game can help a person learn to be a humble winner and a gracious loser and help improve a person's focus, self-control, and critical thinking.

(19) Playing board games is an excellent way to exercise one's brain, engage with other people, and practice essential strategies for handling real-life situations. (20) There are hundreds of competitive and cooperative board games that can provide the ideal balance between entertainment and challenge.



要保持正式文體，作者常常憑藉清晰、凝練以及有時高度學術化的語言。對於類似題目，你需要閱讀文章並考慮整篇文章的文體，然後考慮哪個選項最能保持這一文體。

1. Which revision of sentence 10 best maintains the formal style established in the passage?
- A. When you play a board game with people, you become friendly with them.
  - B. When people participate in a board game, they develop relationships with each other.
  - C. When people get together for a board game, they learn about each other.
  - D. When you become involved in a board game with people, you make friends with the players.

- 2.** Which sentence should be added after sentence 18 to help develop the ideas in the fourth paragraph (sentences 15–18)?
- E.** Playing board games can teach a person a lot about how to manage the daily obstacles that are a natural part of life.
  - F.** The skills used to play games can be useful, as almost all occupations require people to make decisions that can have positive or negative results.
  - G.** People who learn these things will develop strong interpersonal skills, which are an advantage when developing relationships.
  - H.** Concentrating on a goal, responding well to positive and negative outcomes, and making logical decisions are valuable skills in many situations.
- 3.** Which concluding sentence would best follow sentence 20 and support the main argument presented in the passage?
- A.** People should seek out board games that require players to develop complex strategies to defeat opponents.
  - B.** People should choose board games that appeal to them and encourage friends and family to take a seat at the gaming table.
  - C.** People should play board games that involve significant player interaction as they try to achieve the same or different goals.
  - D.** People should find board games that allow friends and family to reap the benefits of regularly playing games.

### Sample 1 Explanation

**(B)** Option B is the correct response because this revision uses precise, formal language (“participate” and “develop relationships”) that maintains the style established in the passage. In addition, this option avoids using the informal second person (“you”) and instead uses “people” to refer to board-game players, which further contributes to the formal style.

### Sample 2 Explanation

**(H)** Option H is the correct response because this sentence further develops the ideas that are presented in sentence 18 (that playing board games can help a person learn to win and lose with grace and can “help improve a person’s focus, self-control, and critical thinking”). This sentence develops these ideas by explaining that these qualities are valuable in situations beyond playing board games.

### Sample 3 Explanation

**(B)** Option B is the correct response because it logically follows the description in sentence 20 that there are “hundreds of competitive and cooperative board games” with the suggestion that a person should choose one that they find appealing or interesting. The passage explains the benefits of playing board games, and the sentence in option B supports the main argument of the passage by emphasizing that playing board games is a fun way to bring people together.

## 閱讀理解概述

這個部分評估你對文章的閱讀和理解能力，至多六篇文章，文學類和資訊類都有，可能包括下列任何文章類型。

資訊類體裁可包括	文學類體裁可包括
說明文	詩歌
議論文	探險故事
功能性文章，形式有：	歷史小說
· 個人小論文	推理小說
· 演講	神話
· 觀點性短文	科幻
· 關於藝術或文學的小論文	寫實小說
· 傳記	寓言
· 回憶錄	滑稽模仿作品
· 新聞	諷刺作品
· 歷史、科學、技術或經濟類科普文章	



## 閱讀理解小建議

**首先,仔細閱讀文章,同時注意時間;不要略讀。**

- ▶ 仔細閱讀文章,肯定自己對主旨和重要細節有精確的、以文本為根據的理解。
- ▶ 閱讀時,監督自己的理解力;如果一個句子或自然段令你費解,則迅速重讀此處。

**記筆記。**

- ▶ 在通讀文章時,快速記簡單筆記,以辨識重要細節、撮要觀點等。

**仔細閱讀問題。**

- ▶ 仔細閱讀問題,這樣你才能清楚地理解問題問的是什麼。例如,你需要著重於僅僅一個自然段中的細節,還是多個自然段中的細節?
- ▶ 如果時間允許,重讀文中相關的一部分或幾部分。

**要力爭在看完各個答案選項之前確定答案。**

- ▶ 在看完各個答案選項之前想出答案。然後閱讀每個答案選項,去掉絕對錯誤的,選擇與你的想法最相符的。
- ▶ 答案只以文章內容(和相關圖像或圖案)為基礎。不要依賴於你對這個主題的已有知識。



- ▶ 在測驗日之前,計劃好你將在閱讀理解部分的每篇文章和問題上花多少時間;這將幫助你在測驗當天高效地回答每個問題。

## Snoozing While Soaring

- 1 Certain types of birds soar for hundreds of miles, over land, over sea—and never stop to rest. That kind of endurance seems impossible to us, since we as people need time to rest and sleep. Researchers set out to learn how birds could fly for such long distances without restorative rest. They found that for some birds, settling in for a good night’s rest is not always a necessity.
- 2 In 2013 Felix Liechti and his research colleagues at the Swiss Ornithological Institute published results of a study about the flight habits of Alpine swifts, small birds that migrate annually between Europe and Africa. Liechti and his team fitted the birds with small electronic tags that recorded the birds’ acceleration and their pitch, or angle relative to the ground. The data revealed that the birds remained completely airborne during their time in Africa, a period of over 200 days. Since all animals require sleep, the researchers inferred that the birds slept from time to time on their long journey. However, since the electronic tags recorded only movement such as gliding or flying, and not brain waves, the question of whether birds sleep during flight remained unanswered.
- 3 Researcher Niels Rattenborg from the Max Planck Institute for Ornithology also delved into this question. In a 2006 article Rattenborg explained that it was theoretically possible that birds could undergo a certain type of sleep while flying. Like mammals, Rattenborg explained, birds experience different types of sleep, including slow-wave sleep (SWS). Rattenborg argued that SWS during flight is plausible because SWS can happen in one hemisphere of the brain at a time, leaving half of the brain essentially awake while the other half sleeps. The eye associated with the “awake” hemisphere can still function, allowing a bird to see where it is going. Rattenborg decided that electroencephalogram (EEG) recordings of birds’ brain waves would ultimately be necessary to determine whether a bird can actually sleep in flight.
- 4 Eventually, Rattenborg and his team were able to create an experiment to prove this theory by studying frigatebirds from the Galápagos Islands. These enormous birds are good subjects for avian-sleep research because they fly far out to sea to hunt fish. However, unlike many seabirds, they cannot land on the water to rest because the physical build of their body—long wings, poorly webbed feet, and minimal feather waterproofing—makes them unable to take off again from the surface of the water. Rattenborg concluded that they must remain in flight for up to two months at a time.
- 5 In an article from 2016, Rattenborg outlined the team’s research methods and conclusions. The team humanely implanted EEGs on the skulls of several frigatebirds. After analyzing the EEG readings of the birds while in flight, the team determined that the frigatebirds slow-wave slept for about ten seconds at a time at points when the birds were gliding upward via warm air currents, typically the safest part of the flight. While in flight the birds slept for only 45 minutes a day, which is just enough rest for the birds to function during these long flights. They later recovered from the stress of going with very little sleep when they rested for approximately twelve hours each day back on land.
- 6 Using EEG recordings, Niels Rattenborg solved the puzzle of when birds sleep while traveling long distances. His evidence proved that his theory was correct, and the birds proved themselves to be the ultimate multitaskers as they manage sleep and flight at the same time.

1. Read this sentence from paragraph 1.

**That kind of endurance seems impossible to us, since we as people need time to rest and sleep.**

The words “endurance” and “impossible” in the sentence convey

- A. amazement about the physical capability of birds to remain in flight for extended periods of time over long distances.
  - B. uncertainty about the conditions that allow birds to stay in flight for extended periods of time without rest.
  - C. excitement about the opportunity to share research into how birds fly for extended periods of time.
  - D. skepticism about discovering how birds can fly for extended periods of time with little or no rest.
2. Which sentence from the passage best supports the idea that birds seem to be capable of making prolonged flights without sleeping?
- E. “The data revealed that the birds remained completely airborne during their time in Africa, a period of over 200 days.” (paragraph 2)
  - F. “In a 2006 article Rattenborg explained that it was theoretically possible that birds could undergo a certain type of sleep while flying.” (paragraph 3)
  - G. “Rattenborg decided that electroencephalogram (EEG) recordings of birds’ brain waves would ultimately be necessary to determine whether a bird can actually sleep in flight.” (paragraph 3)
  - H. “While in flight the birds slept for only 45 minutes a day, which is just enough rest for the birds to function during these long flights.” (paragraph 5)

- 3.** Which statement best summarizes the conclusions of the studies presented in the passage?
- A.** Scientists used monitoring devices to determine that the seconds when migratory birds glide upward in warm air currents are safest for slow-wave sleep.
  - B.** Using monitoring devices, scientists confirmed that migratory birds sleep for an extremely short amount of time while in flight and recuperate by sleeping for an extended period of time after they land.
  - C.** Scientists used monitoring devices to determine that migratory birds require significantly less sleep than many other animals and to show that the birds use only one hemisphere of their brain while flying.
  - D.** Using monitoring devices, scientists confirmed that some types of migratory birds rely on slow-wave sleep cycles in order to stay in flight for extended periods of time.
- 4.** The overall organizational structure of the passage allows the author to
- E.** contrast the significance of research findings related to small migratory birds with those related to large migratory birds.
  - F.** compare the in-flight sleep patterns of the various types of birds examined in several studies.
  - G.** emphasize the role of technology in studying sleep patterns of birds in flight.
  - H.** illustrate how researchers acquired a better understanding of the sleep patterns of birds in flight.

### Sample 1 Explanation

**(A)** Option A is the correct response because it explains that the words “endurance” and “impossible” convey amazement at the birds’ ability to remain in flight for so long without resting—as opposed to human beings, who “need time to rest and sleep” (paragraph 1). Specifically, the word “impossible” implies a sense of wonder or disbelief at the birds’ endurance, which allows them to continue flying for hundreds of miles without stopping. The words “endurance” and “impossible” support the idea expressed later in the passage that these birds are the “ultimate multitaskers” (paragraph 6).

### Sample 2 Explanation

**(E)** Option E best supports the idea that birds seem to be capable of making prolonged flights without sleeping, because it expresses the idea that the birds “remained completely airborne” during “a period of over 200 days” (paragraph 2). This information is significantly more precise than the information in the other answer options. Therefore, option E provides more compelling evidence to support the idea in the question than the other answer options provide.

### Sample 3 Explanation

**(D)** Option D best summarizes the conclusions of the studies presented in the passage. While all the options include some important details about the study of migratory birds, option D accurately states the key conclusion of these studies, which is that these birds “rely on slow-wave sleep cycles in order to stay in flight for extended periods of time” (paragraph 5). Option D’s emphasis on the key conclusion rather than on key details makes it the correct response.

### Sample 4 Explanation

**(H)** Option H best explains the effect of the overall structure of the passage. The passage presents an unresolved question in paragraph 2, while paragraph 3 explains one researcher’s attempt at seeking an answer to the question. Paragraph 4 describes the bird the researchers chose due to its physical makeup and feeding habits. Paragraphs 5 and 6 illustrate the details and outcome of the study, revealing the researchers’ conclusion. Therefore, the overall structure of the passage illustrates how researchers improved their understanding of the sleep patterns of birds in flight.

## 1.5 如何為數學部分備考

數學部分包含填空形式或選擇題形式的應用題和計算題。有5道數學填空題和52道選擇題。數學問題涉及數學技能、數學術語和「紐約州學習標準」數學部分中一般概念的應用。但是，這個測驗的一個目的是辨別出哪些學生可以從特殊高中的教育中受益，因此特殊高中入學測驗數學題會要求你將熟悉的數學技能應用到複雜、多個步驟的問題中。

8年級試卷上的數目試題基於的是7年級的「紐約州學習標準」。9年級試卷上的數學試題基於的是8年級的材料。

下面各頁列出了幫助你備考特殊高中入學測驗數學部分的各種小建議。包括以下各項：

- 對於有待你進一步練習的數學主題，提高相關數學技能的小建議
- 讓自己熟悉特殊高中入學測驗所專有的期許標準（該期許可能有別於你參加過的其他數學測驗）的小建議
- 針對回答選擇題的小建議
- 針對回答填空題的小建議

**請注意：**所有數學樣本試題的答案和答案解釋可以在第23頁至第25頁找到。



### 小建議：提高你的數學技能

#### 查看數學資源。

- 使用數學教科書，在學校或你的本地圖書館尋找其他數學資源，或讓老師推薦資源供你使用。

#### 每天練習解數學題。基礎題和難題都要做。

- 基礎題強化諸如簡化分數和運用統計概念之類的數學技能。
- 較難的題要求列多步驟的複雜方程式。還可能要求使用各類數學技能。例如，你可能用分數解方程式，並用你的統計學知識回答問題。
- 如果你不確定怎樣解答一道題，先跳過，做完其他題之後再回頭做這道題。在做完其他題之後，你可能知道如何更好地解答這道題。



## 為數學部分備考時需要記住的內容

### 記住你在數學課上使用的數學術語、符號和公式。

- ▶ 你必須知道符合你年級水平的數學術語的含義，例如「平行」和「垂直」，以及代表那些術語的符號。
- ▶ 你可以從你的數學課堂材料以及7年級和8年級「紐約州學習標準」網上資料中找到數學術語、符號和公式（例如用於不同圖形的周長和面積的）。
- ▶ 試卷上**不會**給出這些術語、符號和公式的定義和解釋。練習用他們解題，直到你記住他們並且能應用自如。

### 在解題時不要使用計算器。

- ▶ 參加特殊高中入學測驗時，考場**不得**使用計算器。



- ▶ 在測驗日之前，計劃好你將在數學部分花多少時間；這將幫助你在測驗當天高效地回答每個問題。



## 小建議：解數學題

### 請仔細閱讀每一道題。

- ▶ 仔細讀題，這樣你就能用題目中的所有重要信息精確地釐清複雜題目的題設。
- ▶ 標記問題，確保包括了所有解題訊息。如例1所示。
- ▶ 將題中的詞改寫為數學符號（如例1、例2所示）。

### Sample 1

$+$                        $x, x+1$                        $= -15$   
 The sum of two consecutive integers is -15. If 1 is added to the smaller integer and 2 is subtracted from the larger integer, what is the **product** of the two resulting integers?



標註題目，準備解題。

### Sample 2

$J$      $2K$      $J-5$   
Jenny starts a game with twice as many marbles as Keiko. Jenny gives Keiko 5 marbles, but she still has 10 more than Keiko. How many marbles did Jenny have to start with?

- A. 25
- B. 30
- C. 35
- D. 40

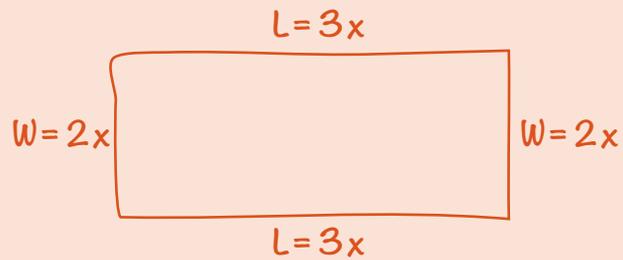


將題中的詞改寫為數學符號。

對於沒有圖或表的題，畫圖或表。

► 畫圖或表，幫你將題目所描述的內容視覺化。如下例所示。

### 示例3



The perimeter of a rectangle is 510 centimeters. The ratio of the length to the width is 3:2. What are the dimensions of this rectangle?

- E. 150 cm by 105 cm
- F. 153 cm by 102 cm
- G. 158 cm by 97 cm
- H. 165 cm by 90 cm



標註圖和表。

每次解一步。

► 有些題目要求你合併一系列的步驟。每次寫出一個步驟，進而解多步驟題。如下例所示。

#### 示例4

$$\begin{aligned}1 \text{ dollar} &= 7 \text{ lorgs} \\ 1 \text{ dollar} &= 0.5 \text{ dalt}\end{aligned}$$

Malik has 140 lorgs and 16 dalts. If he exchanges the lorgs and dalts for dollars according to the rates above, how many dollars will he receive?

- A. \$28
- B. \$52
- C. \$182
- D. \$282

$$\frac{140}{x} = \frac{7}{1}$$

$$7x = 140$$

$$x = \$20$$

$$\frac{16}{x} = \frac{0.5}{1}$$

$$0.5x = 16$$

$$x = \$32$$

$$20 + 32 = \$52$$



第1步：將lorgs轉化成dollars。



第2步：將dalts轉化成dollars。



第3步：將你所轉化的lorgs和dalts相加。



## 關於數學選擇題的小建議

大部分選擇題應算出答案再選擇。

- ▶ 先解題再看答案選項更有效，相比於先看答案選項再試著估量每個答案的準確度繼而得出正確答案。

最好是在紙上解題（而不是心算），著重於解題而不是選答案。

- ▶ 當你得出一個答案時，看列出的選項。如果你的答案在選項之列，標記它。如果不在，則重讀題目再解一次。
- ▶ 如果答案選項中沒有你算出的答案，則應考慮用其他方式寫出你的答案。例如， $\frac{5}{9}(3+x)$ ，下面都是與之等同的寫法：

$$\frac{5(3+x)}{9} \text{ 和 } \frac{5}{3} + \frac{5}{9}x \text{ 和 } \frac{5}{3} + \frac{5x}{9}。$$

- ▶ 如果你的答案仍然不在答案選項之列，盡你最大努力猜一個答案，或者之後有時間回頭重新再算一次。

### Sample 1 Explanation

If  $x$  is the smaller consecutive integer, then  $x + 1$  is the larger consecutive integer. Use their sum  $-15$  to find  $x$ :

$$\begin{aligned}x + (x + 1) &= -15 \\2x + 1 &= -15 \\2x &= -16 \\x &= -8\end{aligned}$$

The two consecutive integers are  $-8$  and  $-7$ .

One is added to the smaller integer:  $-8 + 1 = -7$ .

Two is subtracted from the larger integer:  $-7 - 2 = -9$ .

Find the product:  $-7 \times -9 = 63$ .

### Sample 2 Explanation

(D) Set up some equations.

Jenny ( $J$ ) has twice as many marbles as Keiko ( $K$ ):  $J = 2K$

Jenny gives Keiko 5 marbles, so now they each have:  $J - 5$  and  $K + 5$  marbles.

Jenny still has 10 more than Keiko:

$$J - 5 = (K + 5) + 10$$

To find how many marbles Jenny had to start with, solve  $J = 2K$  for  $K$  and substitute that into the second equation:

In equation  $J = 2K$ , solve for  $K$ :  $K = \frac{J}{2}$ .

Substitute  $\frac{J}{2}$  in for  $K$ .

$$J - 5 = (K + 5) + 10$$

$$J - 5 = \left(\frac{J}{2} + 5\right) + 10$$

$$J - 5 = \frac{J}{2} + 15$$

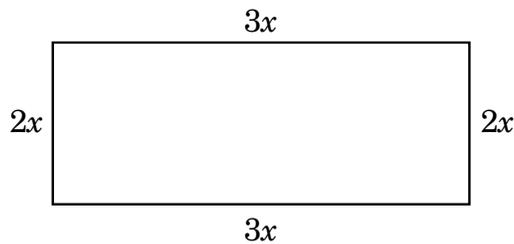
$$\frac{J}{2} = 20$$

$$J = 40 \text{ marbles}$$

### Sample 3 Explanation

(F) Let  $2x =$  the width and  $3x =$  the length.

Draw the rectangle to help visualize.



Since  $2w + 2l = P$ , we get

$$2(2x) + 2(3x) = 510$$

$$4x + 6x = 510$$

$$10x = 510$$

$$x = 51$$

$$2x = 102\text{cm and } 3x = 152 \text{ cm}$$

### Sample 4 Explanation

(B) Use proportions to make the conversions:

**Lorgs to dollars:**

$$\frac{140}{x} = \frac{7}{1}$$

$$7x = 140$$

$$x = \$20$$

**Dalts to dollars:**

$$\frac{16}{x} = \frac{0.5}{1}$$

$$0.5x = 16$$

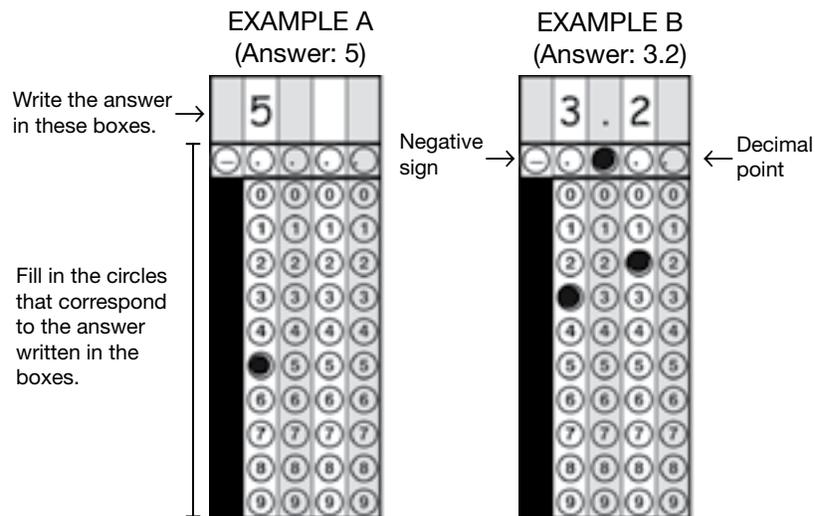
$$x = \$32$$

$$\text{Total dollars} = 20 + 32 = \$52$$

## 怎樣完成數學填空題

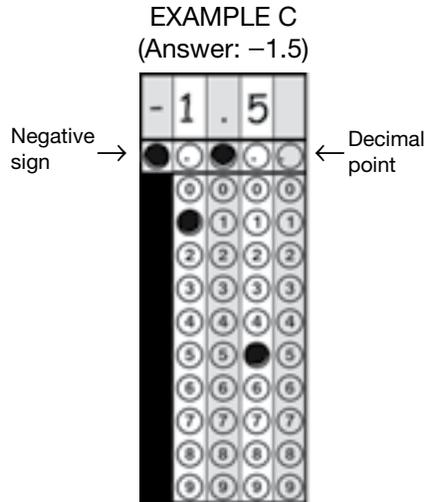
數學部分包括五道填空題。對於這些題，學生必須解計算題並提供正確的數值答案，而不是從多個選項中選出答案。

- ▶ 每個題要填的空由五欄總成。當你在填空處寫下答案時，從左邊開始。
- ▶ 對於每個填空題，在填空處的方框中寫下你的答案。
- ▶ 在每個方框中只清楚填寫一個數字或一個小數點。如果你的答案包含一個小數點，則用「.」。
- ▶ 方框下方有圓圈，把與你所寫答案的數字或符號相對應的圓圈塗黑。

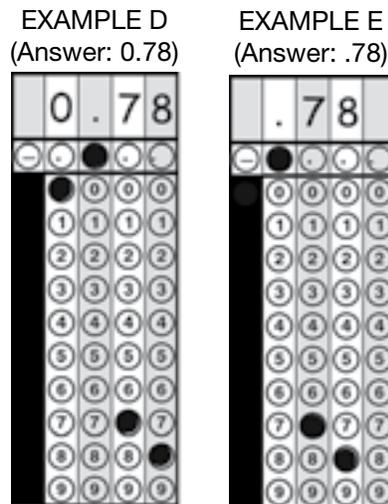


## 怎樣回答填空題(續)

- ▶ 填空處的左邊第一欄僅用以標寫負數符號，如**例C**所示。  
如果你的答案是正數，請將第一欄留白，而從第二欄開始標寫你的答案。



- ▶ 當你的答案含有小數點時，一定要塗黑你答案所有部分相對應的圓圈。例如，如果你的答案是0.78，則塗黑0、「.」、7和8下面的圓圈，如**例D**所示。請注意，我們也接受寫成.78的答案，視為正確，如**例E**所示。

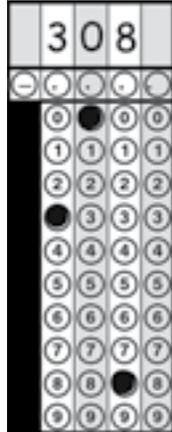


**例D**和**例E**展示了填寫同一答案的可接受的方式。

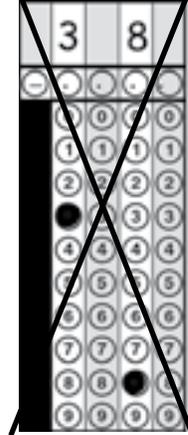
## 怎樣回答填空题(續)

- ▶ 請不要在答案中間留空白。如果在答案中間留空白，將被記為答錯。例如，如果你的答案是308，以**例F**這種方式填空是可以接受的。在**例G**中，3和8之間有空白但它不是0，這種填空方式是不被接受的，並將被記為答錯。

EXAMPLE F  
(Answer: 308)

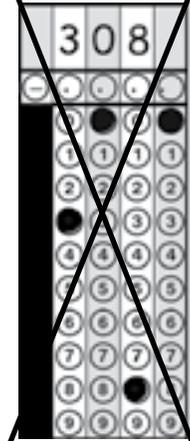


EXAMPLE G  
(Answer: 38)



- ▶ 不要在沒有使用的方框下塗圈，如**例H**所示。例H所標記的答案將按照3,080判分，因為最末一欄的0被填塗，即便打算寫的答案是308。

EXAMPLE H  
(Answer: 3080)



## 關於填空題的重要提示

- ▶ 填空處的圓圈必須塗黑，你的答案才會計分。
- ▶ 如果你在方框裏寫了答案，但沒有塗黑圓圈，你的答案會被記為答錯。
- ▶ 如果你寫在方框中的答案與你塗黑的圓圈不相符，我們會根據你塗黑的圓圈判分，如例H所示。
- ▶ 如果一欄中超過一個圓圈被塗黑，你的答案會被記為答錯。
- ▶ 一個正確的完整數值答案將被記為答對，即便你一不小心從錯誤的一欄開始填寫你的答案。
- ▶ 如果你一不小心在一個整數後加了一個小數點（沒有額外值或零），你的答案將按照那個整數判分。例如，如果你的答案是5，如例A所示，而答案填塗的是5.或5.0，判分時你的答案會被視為5。