

## 1.4 Kòman pou prepare pou seksyon ELA a

Seksyon ELA a gen 57 kesyon ak chwa miltip ki evalye kapasite pou revize/edite ak konpreyansyon lekti. Kesyon sa yo konfòm ak **Nòm aprantisaj Eta Nouyòk (New York State Learning Standards) yo**. Paj ki vin apre a bay konsèy pou reponn kesyon revizyon/edisyon ak konpreyansyon lekti yo.

### Rezime Pati A revizyon/edisyon

Kapasite langaj yo evalye nan seksyon sa a li baze sou seksyon langaj nòm aprantisaj Eta Nouyòk pou klas 7yèm ane, ansanm ak kapasite oswa nòm yo ka entwodui nan klas ki pi piti yo, tankou kapasite pwogresif langaj (Language Progressive Skills). Chak kesyon mande w pou li yon fraz, yon lis fraz oswa yon paragaf ki gen fraz nimewote. Apresa yo mande w pou rezoud pwoblèm ki gen rapò ak konvansyon langaj oswa ponktiyasyon. Pami egzanp yo ou gen:

- chwazi pi bon koreksyon pou yon erè
- idantifye yon fraz ki gen yon erè
- melanje fraz oswa revize pati yon fraz pou amelyore tèks la



### Konsèy pou revize/edite Pati A

#### Dabò, li kesyon an.

- Pou pifò kesyon yo, li kesyon yo dabò olye pou li tèks la anpremye, pou w ka konnen ki tip pwoblèm pou chèche pandan w ap li tèks la.

#### Après, li tèks ki nan kazyè a epi pran nòt sou pwoblèm ou wè yo, pandan w ap veye lè a.

- Èske gen mo, ekspresyon oswa fraz ki difisil pou li akòz yon erè nan izaj langaj oswa ponktiyasyon?
- Èske gen kèk pati nan tèks la yo ta ka ekri pi klè, pi kout oswa pi presi?
- Make tèks la byen vit lè w wè yon erè. Sa ka ede w chwazi yon opsyon pou repons.
- Sonje nòt ou yo ta dwe konsantre sou sijè espesifik kesyon.



- Avan jou egzamen an, planifye konbyen tan w ap pase sou pati A; sa pral ede w vin efikas lè w ap reponn chak kesyon nan jou egzamen an.

## MODÈL KESYON POU REVIZE/EDITE PATI A

### 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**.



Pou konnen pi bon revizyon pou paragraf sa a, li chanjman ki posib nan premye opsyon an pandan w ap li premye fraz ki nan paragraf la. Si ou pa bezwen fè yon revizyon, kontinye li chak fraz ak opsyon repons jiskaske ou jwen repons ki kòrèk la.

## 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



Pou idantifye fraz la, li tèks la byen li pandan w ap siveye lè a; pa jis pase je w sou tèks la. Erè ka nempòt kote nan paragraf la.



Sonje ke erè a se pou *estrikti fraz* la presizeman li ye, sa vle di li gen rapò ak kòman yo ranje mo yo ak ekspresyon yo nan yon fraz pou montre (reprezante) relasyon ki genyen ant ide yo.

### 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.



Pou melaje fraz yo, poze tèt ou kesyon

1. Èske gen mo/ide ki repete ke yo ta ka itilize yon sèl fwa?
2. Kòman yo ka konekte diferan ide? Èske yo reprezante yon koz ak yon efè, ide opoze, yon sekans, etc.?

#### 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.

## Rezime revizyon/edite Pati B

Kesyon ki nan Pati B a evalye kapasite w pou li yon tèks epi pran desizyon ki amelyore kalite tèks la anjeneral. Sijè ki prezante nan tèks sa yo pral gen ladan evènman istorik ak aktyèl; moun, kote ak teknoloji; ak fenomèn ki nan syans biyolojik, syans fizik ak syans sosyal. Chak fraz yo nimewote pou w ka konnen kote yo ye ak pou w ka gade pati espesifik tèks la.

Tèks la ka gen erè tankou

- movèz itilizasyon langaj
- detay sipò ki manke oswa ki pa nesèsè
- mo, ekspresyon oswa fraz ki manke oswa ki pa apwopriye
- yon entwodiksyon oswa yon konklizyon ki manke oswa ki pa klè
- òganizsyon ki pa klè oswa ki pa lojik
- lòt erè ki gen rapò ak nòm langaj ak tèks



## Konsèy pou revize/edite Pati B

**Dabò, li tèks la byen li pandan w ap siveye lè a; pa jis pase je w sou tèks la.**

- Ou bezwen konprann objektif otè a, lide prensipal ak detay ki sipòte tèks la pou w ka reponn kesyon yo sou kòman ou ka pi byen devlope ak òganize tèks la. Sa mande pou byen li.
- Ou ka remake fraz ak paragraf ki sanble pa klè, ki pa lojik, ki pa nesèsè, mal òganize oswa ki difisil pou li anjeneral.
- Sonje nan ki lòd ou ta dwe li tèks la ak kesyon pou pati B a diferan ak Pati A a. Nan Pati A, ou sipoze li *kesyon* an avan. Nan Pati B a, ou sipoze li *tèks* la avan.

**Après, li chak kesyon byen li pandan w ap siveye lè a.**

- Regade tèks la epi reli fraz oswa paragraf ki enpòtan yo site nan kesyon an.
- Ou ka bezwen tou pou gade fraz avan ak fraz apre fraz y ap pale nan yon kesyon.
- Konsidere chak opsyon repons, reli tèks la si sa nesèsè (si w gen tan). Detèmine si opsyon an reprezante pi bon revizyon an.



- Avan jou egzamen an, planifye konbyen tan w ap pase nan pati B; sa pral ede w vin efikas lè w ap reponn chak kesyon nan jou egzamen an.

## 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.



Pou konsève estil fòmèl, ekriyen souvan konte sou langaj ki presi, brèf epi ki kèk fwa gen wo nivo akademik. Pou kesyon tankou sa a, ou sipoze li ak konsidere estil tèks la okonplè epi apresa konsidere ki opsyon ki konsève estil sa a pi byen.

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.

## Rezime konpreyansyon lekti

Seksyon sa a evalue kapasite w pou li ak konprann jiska sis tèks pou ni jan literè ak tèks ki gen enfòmasyon, ki ka gen ladan nenpòt tip tèks ki pi ba a.

Jan tèks ki gen enfòmasyon ka gen ladan	Jan tèks literè yo ka gen ladan
Tèks ki fè ekspoze/ki bay eksplikasyon	pwezi
tèks ki bay agiman	istwa avanti
tèks fonksyonèl sou fòm:	woman istorik
• disètasyon pèsonèl	mistè
• diskou	mit
• pyès opinyon	woman ki baze sou syans
• disètasyon sou art oswa literati	woman ki baze sou reyalite
• biyografi	alegori
• memwa	pawodi
• jounalis	sati
• istwa istorik, syantifik, teknik oswa ekonomik ki ekri pou yon piblik ki laj	





## Konsèy pou konpreyansyon lekti

**Li tèks la byen li pandan w ap siveye lè a; pa jis pase je w sou tèks la.**

- Li tèks la byen li pou asire ou gen yon konpreyansyon ni ide prensipal yo ni detay enpòtan egzat ki baze sou tèks la.
- Swiv jan w konprann pandan w ap li; si yon fraz oswa yon paragraf pa klè pou ou, eseye reli l.

**Pran nòt.**

- Pran nòt *kout* pou idantifye detay enpòtan, rezime ide, etc., pandan w ap li tèks la okonplè.

**Byen li kesyon an.**

- Li kesyon an byen li pou w ka byen konprann kisa yo mande nan kesyon an. Paegzanp, èske w ap bezwen konsantre sou detay ki nan sèlman yon paragraf oswa nan plizyè paragraf?
- Si gen tan, reli pati ki enpòtan nan tèks la.

**Eseye jwenn repons lan avan w li opsyon ki gen pou repons yo.**

- Panse repons lan avan w li chak opsyon. Apresa, li chak opsyon pou repons lan pandan w ap elimine sa ki sanble klèman pa kòrèk yo epi chwazi sa ou panse ki pi bon an.
- Baze repons ou yo sèlman sou kontni tèks la (ak imaj oswa graf ki gen rapò kote sa enpòtan). Pa konte sou konesans ou te genyen sou sijè a avan.



- Avan jou egzamen an, planifye konbyen tan w ap pase sou chak tèks ak kesyon ki gen rapò avek yo nan seksyon konpreyansyon lekti a; sa pral ede w vin efikas lè w ap reponn chak kesyon nan jou egzamen an.

## 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 Kòman pou prepare pou seksyon Matematik la

Matematik la gen pwoblèm ekri ak kesyon kalkil swa nan fòm chwa miltip oswa fòm griy. Gen senk kesyon pou make repons sou griy la ak 52 kesyon chwa miltip. Kesyon Matematik yo mande aplikasyon kapasite nan matematik, tèm matematik ak konsèp jeneral ki nan Nòm aprantisaj Eta Nouyòk pou Matematik. Sepandan, piske yonn nan objektif egzamen sa a se idantifye elèv ki pral benefisye yon edikasyon nan yon lekòl segondè espesyalize, kesyon matematik nan SHSAT a pral egzije w aplike kapasite matematik ou abitye pou pwoblèm ki konplèks, ki gen plizyè etap.

Kesyon matematik sou fòm egzamen Klas 8yèm ane yo baze sou nòm aprantisaj Eta Nouyòk ki nan klas 7yèm ane. Kesyon matematik sou fòm egzamen klas 9yèm yo baze sou materyèl jiska klas 8yèm.

Paj sa yo dekri divès konsèy pou ede w prepare pou pran seksyon matematik ki nan egzamen SHSAT an. Genyen Aktivite sa yo ladan:

- konsèy pou amelyore kapasite matematik ou nan sijè matematik kote ou bezwen plis pratik
- avèk konsèy pou abitye w avèk sa w ap jwenn ki espesifik nan egzamen SHSAT a epi ki ka diferan ak lòt egzamen matematik ou pran
- konsèy espesifikman pou reponn kesyon matematik ak chwa miltip
- espesifikman pou reponn kesyon matematik nan griy

**Sonje:** Ou ka jwenn repons ak eksplikasyon repons pou tout modèl kesyon matematik nan paj 23–25.



### Konsèy pou amelyore kapasite matematik ou.

#### Gade resous pou Matematik yo.

- Itilize manyèl Matematik ou a, chèche lòt resous matematik nan lekòl oswa nan bibliyotèk bò lakay ou a oswa mande pwofesè w la pou ba w resous pou w itilize.

#### Pratike rezoud kesyon Matematik chak jou. Rezoud ni kesyon debaz yo ni kesyon difisil yo.

- Kesyon debaz yo ranfòse kapasite Matematik tankou senpliye fraksyon ak aplike konsèp estatistik la.
- Kesyon ki pi difisil yo egzije pou rezoud ekwasyon konplèks ki gen plizyè etap Yo ka egzije tou pou itilize divès tip kapasite matematik. Paegzanp, ou ka itilize fraksyon, rezoud ekwasyon ak aplike konesans estatistik ou pou reponn yon kesyon.
- Si w gen dout sou kòman pou reponn yon kesyon, sote l epi retounen sou li apre pou w ka reponn lòt kesyon yo. Ou ka gen yon pi bon ide sou kòman pou rezoud yon pwoblèm apre ou fin reponn lòt kesyon yo.



## Bagay pou sonje pandan w ap prepare pou seksyon Matematik la.

**Memorize tèm matematik yo, senbòl ak fòmil ou konn itilize nan klas matematik ou a.**

- Ou dwe konnen siyifikasyon tèm matematik ki apwopriye pou nivo klas ou a, tankou "paralèl" ak "pèpandikilè," ansanm ak senbòl ki reprezante tèm sa yo.
- Ou ka jwenn tèm matematik yo, senbòl yo ak fòmil tankou sa ki pou perimèt ak sifas diferan figi, nan materyèl ki pou klas matematik ou a ak sou entènèt nan Nòm aprantisaj Eta Nouyòk pou klas 7yèm ak 8yèm ane.
- Yo P AP bay definisyon ak eksplikasyon pou tèm, senbòl ak fòmil yo nan tiliv egzamen an. Pratikite itilize yo pou rezoud pwoblèm jiskaske ou memorize yo epi ou ka itilize yo avèk fasilite.

**Pa itilize kalkilatis lè w ap rezoud pwoblèm yo.**

- Yo pa otorize kalkilatis pandan w ap pran egzamen SHSAT a.



- Avan jou egzamen an, planifye konbyen tan w ap pase nan seksyon Matematik la; sa pral ede w vin efikas lè w ap reponn chak kesyon nan jou egzamen an.



## Konsèy pou rezoud pwoblèm Matematik

### Byen li chak kesyon.

- Byen li pou w ka rezoud pwoblèm konplèks yo avèk presizyon lè w itilize tout enfòmasyon enpòtan ki nan kesyon an.
- Make kesyon an, menm jan ak nan modèl kesyon 1 an pou asire ou mete tout enfòmasyon yo lè w ap rezoud pwoblèm lan.
- Chanje mo apati kesyon an an senbòl matematik (jan yo fè l nan modèl 1 ak 2 a).

### Sample 1

The  $+$  sum of two consecutive integers  $x, x+1$  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?



Make kesyon an pou prepare w pou rezoud pwoblèm lan.

### Sample 2

$J$  Jenny starts a game with  $2K$  twice as many marbles as Keiko. Jenny gives Keiko 5 marbles  $J-5$  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

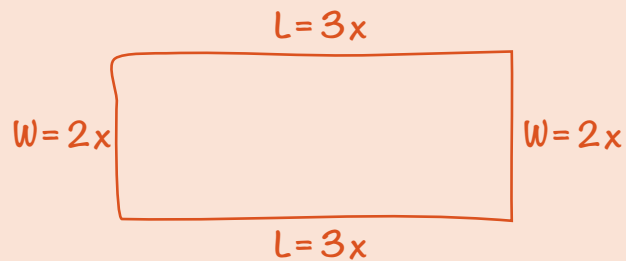


Chanje mo ki nan kesyon an an senbòl matematik.

**Desine figi oswa dyagram pou kesyon ki pa genyen yo.**

➤ Desine figi oswa dyagram, tankou nan egzannp ki pi ba a, pou ede w konprann sa ki dekri nan kesyon an.

### Sample 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



Idantifye figi ak dyagram yo.



**Fè yon etap alafwa.**

- Kèk kesyon mande w pou melanje yon seri etap. Ekri yon etap alafwa, tankou nan egzanp ki pi ba a, pou rezoud pwoblèm ki gen plizyè etap.

**Modèl 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

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

$$7x = 140$$

$$x = \$20$$

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

$$0.5x = 16$$

$$x = \$32$$

$$20 + 32 = \$52$$



Etap 1: Konvèti lorgs an dola.



Etap 2: Konvèti dalts an dola.



Etap 3: Fè total konvèsyon lorgs and dalts ou yo ansanm.



## Konsèy pou kesyon matematik ki gen chwa miltip

**Ou ta dwe rezoud pifò kesyon ak chwa miltip apati repons lan.**

- Rezoud pwoblèm lan *avan* w gade opsyon pou repons lan pi efikas pase gade opsyon repons lan dabò *apresa* eseye estime presizyon chak pou rive nan repons kòrèk la.

**Li pi bon pou rezoud pwoblèm yo sou papye (olye jis nan tèt ou) epi pou konsantre sou rezoud olye pou chwazi.**

- Lè w jwenn yon repons, gade chwa yo mete yo. Si repons ou an pami chwa yo, make li. Si li pa la, reli kesyon an epi rezoud li ankò.
- Si repons ou pa nan opsyon repons yo, konsidere lòt mwayen pou ekri repons ou an. Paegzanp;  $\frac{5}{9}(3 + x)$  se ekivalan tout sa yo:

$$\frac{5(3 + x)}{9} \text{ ak } \frac{5}{3} + \frac{5}{9}x \text{ ak } \frac{5}{3} + \frac{5x}{9}.$$

- Si repons ou an toujou pa nan opsyon repons yo, devine ak/oswa regade pi ta si w gen tan.

### Sample 1 Explanation

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

$$x + (x + 1) = -15$$

$$2x + 1 = -15$$

$$2x = -16$$

$$x = -8$$

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:**

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

$$0.5x = 16$$

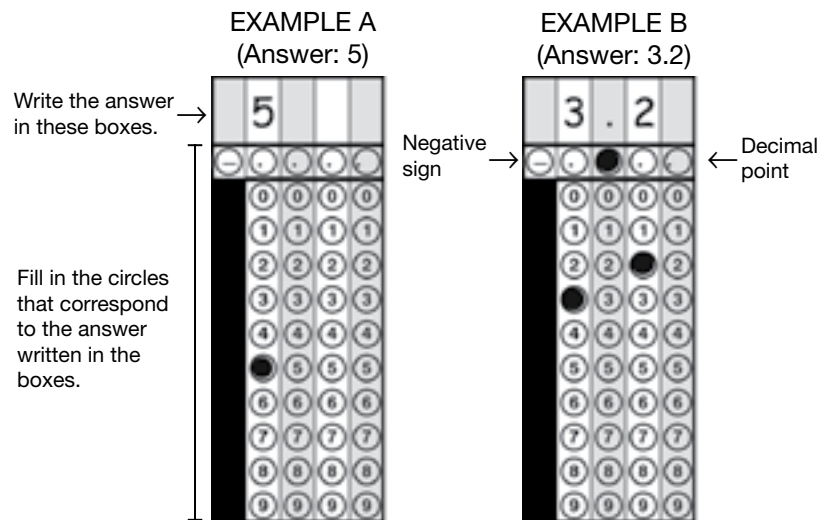
$$x = \$32$$

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

## Kòman pou konplete kesyon matematik an griy

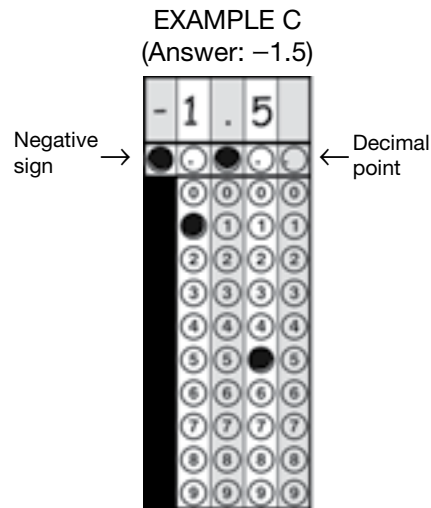
Seksyon Matematik la gen ladan senk kesyon an griy kote elèv yo dwe rezoud pwoblèm kalkil ak bay repons nimerik ki kòrèk la olye pou yo chwazi repons lan nan opsyon chwa miltip.

- Griy pou chak kesyon fèt ak senk kolòn. Lè w make repons ou an nan griy la, kòmanse agoch.
- Pou chak kesyon an griy, ekri repons ou an nan kazye ki anlè griy la.
- Mete sèlman yon nonb oswa senbòl desimal nan chak kazye. Itilize senbòl "." si repons ou an gen ladan yon vigil.
- Nwasi boul ki anba kazye ki koresponn ak nonb oswa senbòl ou te ekri a.



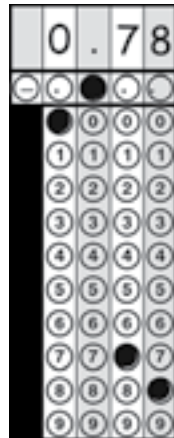
## Kòman pou reponn kesyon matematik an griy (kontinye)

- Premye kolòn agoch griy la se SÈLMAN pou mete yon siy negatif, menm jan ak nan **Egzanp C** a. Si repons ou an pozitif, kite premye premye kolòn lan vid epi kòmanse make repons ou an nan dezyèm kolòn lan.

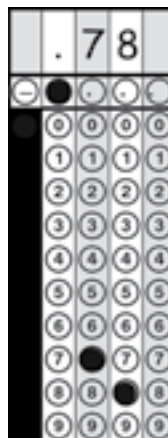


- Lè repons ou an gen ladan yon desimal, asire w nwasi boul ki koresponn ak tout pati repons ou an. Paegzanp, si repons ou an se 0.78, nwasi boul ki anba 0 a, ".", 7, ak 8, tankou nan **Egzanp D** a. Sonje y ap aksepte yon repons ki gen .78 kòm repons ki kòrèk, tankou nan **Egzanp E** a.

EXAMPLE D  
(Answer: 0.78)



EXAMPLE E  
(Answer: .78)

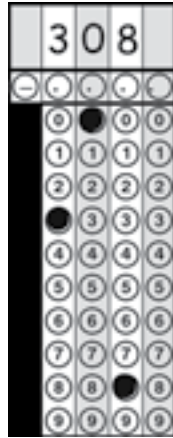


**Egzanp D ak E** yo montre fason ki akseptab pou make an griy menm repons lan.

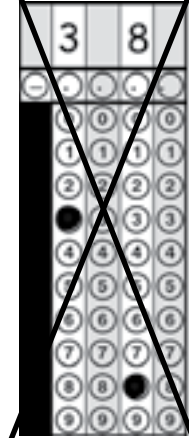
## Kòman pou reponn kesyon matematik an griy (kontinye)

- Pa kite yon kazye vid nan mitan yon repons. Si gen yon vid nan mitan repons ou an, y ap make li pa kòrèk. Paegzanp, si repons ou an se 308, **Egzanp F** la se fason ki akseptab pou make repons ou an nan griy la. Nan **Egzanp G** a, gen yon espas ant 3 ak 8 olye yon 0—se pa yon fason ki akseptab pou make repons ou an nan griy la epi y ap make l kòm repons ki pa kòrèk.

EXAMPLE F  
(Answer: 308)

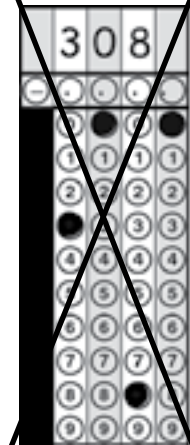


EXAMPLE G  
(Answer: 38)



- Pa nwasi yon boul ki anba yon kazye yo pa itilize, tankou nan **Egzanp H** la. Repons yo make nan **Egzanp H** la, y ap korije l tankou se 3,080 paske boul ki nan dènnye kolòn lan nwasi menmsi repons yo te panse make a se 308.

EXAMPLE H  
(Answer: 3080)



## Remak enpòtan sou Griy (Grid-Ins)

- Pou yo bay repons ou an nòt, ou dwe nwasi boul ki nan griy la.
- Si w ekri yon repons nan kazye yo epi ou pa nwasi boul ki nan griy la, y ap make repons ou an pa kòrèk.
- Si repons ki ekri nan kazye yo pa koresponn ak jan ou te nwasi boul yo, nòt ou a ap baze sou fason ou te ranpli boul yo, tankou nan egzanp H la.
- Si gen plis pase yon boul ki nwasi nan yon kolòn, y ap make repons ou an pa kòrèk.
- Yon repons nimerik ki kòrèk, y ap make l kòrèk, menm si pa aksidan ou kòmanse make l nan kolòn ki pa kòrèk la.
- Si pa aksidan ou ajoute yon vigil (san lòt valè oswa zewo) apre yon nonb antye, y ap korije repons ou an tankou se te nonb antye sa a. Pa egzanp, si repons ou an se 5, tankou nan egzanp A a, yon repons ou nwasi tankou 5 oswa tankou 5.0, y ap konsidere l tankou yon repons 5 lè y ap korije l.