

**2021-22**

# **The SAT<sup>®</sup>**

---

# Practice Test #6

**Make time to take the practice test.**  
It's one of the best ways to get ready  
for the SAT.

After you've taken the practice test, score it right away with  
the scoring guide at [sat.org/scoring](https://sat.org/scoring).



**SAT<sup>®</sup>**

# About College Board

College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, College Board was created to expand access to higher education. Today, the membership association is made up of over 6,000 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success—including the SAT® and the Advanced Placement® Program. The organization also serves the education community through research and advocacy on behalf of students, educators, and schools.

For further information, visit [collegeboard.org](https://collegeboard.org).

# Official SAT Practice Test

## About the Practice Test

Take the practice test, which starts on the next page, to reinforce your test-taking skills and to be more comfortable when you take the SAT. This practice test will give you a good idea of what to expect on the actual test.

In addition, once you take the test you can go to [sat.org/practicetests](https://sat.org/practicetests) for a scoring guide to check your answers and get answer explanations.

You'll need to set aside 3 hours and 15 minutes to take the test.

## Approaches to the Practice Test

The practice test will help you more if you take it under conditions as close as possible to those of the actual test.

- Plan to complete the entire test in one sitting.
  - ◆ The Reading Test takes 65 minutes, followed by a 10-minute break.
  - ◆ The Writing and Language Test is 35 minutes long, followed immediately (no break) by the Math Test – No Calculator, which takes 25 minutes.
  - ◆ Allow yourself a 5-minute break, and then take the Math Test – Calculator, which is 55 minutes long.
- Pace yourself by using a watch (without an audible alarm).
- Sit at a desk or table cleared of any other papers or books. Don't use any prohibited items such as a dictionary, notes, or scratch paper.
- Use an acceptable calculator that is familiar to you for the Math Test – Calculator. Check our calculator policies at [sat.org/calculator](https://sat.org/calculator).
- Read the test directions carefully.

## Marking the Answer Sheet

Getting credit for the right answer depends on marking the answer sheet correctly. When filling out your answer sheet, whether for the practice test or on test day, follow these important instructions:

- Make sure you use a No. 2 pencil.
- Fill in the entire bubble on the answer sheet darkly and completely.
- If you change your response, erase it as completely as possible.

## Calculating Your Scores

The scoring guide at [sat.org/practicetests](https://sat.org/practicetests) shows how your test should be scored: by counting the questions you answered correctly and converting this “raw” score to a score on the College Board scale of 200 to 800.

## Evaluate Your Test Performance

Once you've scored your practice test, review your performance and ask yourself these questions:

- **Did I run out of time before I finished a section?**  
Remember, all multiple-choice questions are scored the same way. Be prepared to keep moving on test day and don't spend too much time on any one question.
- **Did I make careless mistakes?** You may have misread a question, neglected to notice a word such as “except” or “best,” or solved for the wrong value. Recognizing these small but critical errors will help you avoid them on test day.
- **Did I spend too much time reading directions?**  
Review any directions that gave you trouble so you don't have to spend as much time reading them when you take the actual test.
- **Keep learning and practicing at [satpractice.org](https://satpractice.org).**

# Reading Test

65 MINUTES, 52 QUESTIONS

Turn to Section 1 of your answer sheet to answer the questions in this section.

## DIRECTIONS

Each passage or pair of passages below is followed by a number of questions. After reading each passage or pair, choose the best answer to each question based on what is stated or implied in the passage or passages and in any accompanying graphics (such as a table or graph).

### Questions 1-10 are based on the following passage.

This passage is adapted from Daniyal Mueenuddin, “Nawabdin Electrician.” ©2009 by Daniyal Mueenuddin.

Another man might have thrown up his hands—but not Nawabdin. His twelve daughters acted as a spur to his genius, and he looked with  
*Line* satisfaction in the mirror each morning at the face of  
5 a warrior going out to do battle. Nawab of course knew that he must proliferate his sources of revenue—the salary he received from K. K. Harouni for tending the tube wells would not even begin to suffice. He set up a little one-room flour mill, run off  
10 a condemned electric motor—condemned by him. He tried his hand at fish-farming in a little pond at the edge of his master’s fields. He bought broken radios, fixed them, and resold them. He did not demur even when asked to fix watches, though that  
15 enterprise did spectacularly badly, and in fact earned him more kicks than kudos, for no watch he took apart ever kept time again.

K. K. Harouni rarely went to his farms, but lived mostly in Lahore. Whenever the old man visited,  
20 Nawab would place himself night and day at the door leading from the servants’ sitting area into the walled grove of ancient banyan trees where the old farmhouse stood. Grizzled, his peculiar aviator

glasses bent and smudged, Nawab tended the  
25 household machinery, the air conditioners, water heaters, refrigerators, and water pumps, like an engineer tending the boilers on a foundering steamer in an Atlantic gale. By his superhuman efforts he almost managed to maintain K. K. Harouni in the  
30 same mechanical cocoon, cooled and bathed and lighted and fed, that the landowner enjoyed in Lahore.

Harouni of course became familiar with this ubiquitous man, who not only accompanied him on  
35 his tours of inspection, but morning and night could be found standing on the master bed rewiring the light fixture or in the bathroom poking at the water heater. Finally, one evening at teatime, gauging the psychological moment, Nawab asked if he might say  
40 a word. The landowner, who was cheerfully filing his nails in front of a crackling rosewood fire, told him to go ahead.

“Sir, as you know, your lands stretch from here to the Indus, and on these lands are fully seventeen tube  
45 wells, and to tend these seventeen tube wells there is but one man, me, your servant. In your service I have earned these gray hairs”—here he bowed his head to show the gray—“and now I cannot fulfill my duties as I should. Enough, sir, enough. I beg you, forgive  
50 me my weakness. Better a darkened house and proud hunger within than disgrace in the light of day. Release me, I ask you, I beg you.”

The old man, well accustomed to these sorts of speeches, though not usually this florid, filed away at  
55 his nails and waited for the breeze to stop.

“What’s the matter, Nawabdin?”

“Matter, sir? O what could be the matter in your service. I’ve eaten your salt for all my years. But sir, on the bicycle now, with my old legs, and with the  
60 many injuries I’ve received when heavy machinery fell on me—I cannot any longer bicycle about like a bridegroom from farm to farm, as I could when I first had the good fortune to enter your employment. I beg you, sir, let me go.”

65 “And what’s the solution?” asked Harouni, seeing that they had come to the crux. He didn’t particularly care one way or the other, except that it touched on his comfort—a matter of great interest to him.

“Well, sir, if I had a motorcycle, then I could  
70 somehow limp along, at least until I train up some younger man.”

The crops that year had been good, Harouni felt expansive in front of the fire, and so, much to the disgust of the farm managers, Nawab received a  
75 brand-new motorcycle, a Honda 70. He even managed to extract an allowance for gasoline.

The motorcycle increased his status, gave him weight, so that people began calling him “Uncle,” and asking his opinion on world affairs, about which he  
80 knew absolutely nothing. He could now range further, doing a much wider business. Best of all, now he could spend every night with his wife, who had begged to live not on the farm but near her family in Firoza, where also they could educate at  
85 least the two eldest daughters. A long straight road ran from the canal headworks near Firoza all the way to the Indus, through the heart of the K. K. Harouni lands. Nawab would fly down this road on his new machine, with bags and cloths hanging from every  
90 knob and brace, so that the bike, when he hit a bump, seemed to be flapping numerous small vestigial wings; and with his grinning face, as he rolled up to whichever tube well needed servicing, with his ears almost blown off, he shone with the speed of his  
95 arrival.

1

The main purpose of the first paragraph is to

- A) characterize Nawab as a loving father.
- B) outline the schedule of a typical day in Nawab’s life.
- C) describe Nawab’s various moneymaking ventures.
- D) contrast Nawab’s and Harouni’s lifestyles.

2

As used in line 16, “kicks” most nearly means

- A) thrills.
- B) complaints.
- C) jolts.
- D) interests.

3

The author uses the image of an engineer at sea (lines 23–28) most likely to

- A) suggest that Nawab often dreams of having a more exciting profession.
- B) highlight the fact that Nawab’s primary job is to tend to Harouni’s tube wells.
- C) reinforce the idea that Nawab has had many different occupations in his life.
- D) emphasize how demanding Nawab’s work for Harouni is.

4

Which choice best supports the claim that Nawab performs his duties for Harouni well?

- A) Lines 28-32 (“By his . . . Lahore”)
- B) Lines 40-42 (“The landowner . . . ahead”)
- C) Lines 46-49 (“In your . . . should”)
- D) Line 58 (“I’ve . . . years”)

5

In the context of the conversation between Nawab and Harouni, Nawab’s comments in lines 43-52 (“Sir . . . beg you”) mainly serve to

- A) flatter Harouni by mentioning how vast his lands are.
- B) boast to Harouni about how competent and reliable Nawab is.
- C) emphasize Nawab’s diligence and loyalty to Harouni.
- D) notify Harouni that Nawab intends to quit his job tending the tube wells.

6

Nawab uses the word “bridegroom” (line 62) mainly to emphasize that he’s no longer

- A) in love.
- B) naive.
- C) busy.
- D) young.

7

It can reasonably be inferred from the passage that Harouni provides Nawab with a motorcycle mainly because

- A) Harouni appreciates that Nawab has to work hard to support his family.
- B) Harouni sees benefit to himself from giving Nawab a motorcycle.
- C) Nawab’s speech is the most eloquent that Harouni has ever heard.
- D) Nawab threatens to quit if Harouni doesn’t agree to give him a motorcycle.

8

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 65-66 (“And . . . crux”)
- B) Lines 66-68 (“He didn’t . . . him”)
- C) Lines 75-76 (“He even . . . gasoline”)
- D) Lines 80-81 (“He could . . . business”)

9

The passage states that the farm managers react to Nawab receiving a motorcycle with

- A) disgust.
- B) happiness.
- C) envy.
- D) indifference.

10

According to the passage, what does Nawab consider to be the best result of getting the motorcycle?

- A) People start calling him “Uncle.”
- B) He’s able to expand his business.
- C) He’s able to educate his daughters.
- D) He can spend more time with his wife.

**Questions 11-21 are based on the following passage and supplementary material.**

This passage is adapted from Stephen Coleman, Scott Anthony, and David E. Morrison, “Public Trust in the News.” ©2009 by Stephen Coleman.

The news is a form of public knowledge. Unlike personal or private knowledge (such as the health of one’s friends and family; the conduct of a private hobby; a secret liaison), public knowledge increases in value as it is shared by more people. The date of an election and the claims of rival candidates; the causes and consequences of an environmental disaster; a debate about how to frame a particular law; the latest reports from a war zone—these are all examples of public knowledge that people are generally expected to know in order to be considered informed citizens. Thus, in contrast to personal or private knowledge, which is generally left to individuals to pursue or ignore, public knowledge is promoted even to those who might not think it matters to them. In short, the circulation of public knowledge, including the news, is generally regarded as a public good which cannot be solely demand-driven.

The production, circulation, and reception of public knowledge is a complex process. It is generally accepted that public knowledge should be authoritative, but there is not always common agreement about what the public needs to know, who is best placed to relate and explain it, and how authoritative reputations should be determined and evaluated. Historically, newspapers such as *The Times* and broadcasters such as the BBC were widely regarded as the trusted shapers of authoritative agendas and conventional wisdom. They embodied the *Oxford English Dictionary’s* definition of authority as the “power over, or title to influence, the opinions of others.” As part of the general process of the transformation of authority whereby there has been a reluctance to uncritically accept traditional sources of public knowledge, the demand has been for all authority to make explicit the frames of value which determine their decisions. Centres of news production, as our focus groups show, have not been exempt from this process. Not surprisingly perhaps some news journalists feel uneasy about this renegotiation of their authority:

Editors are increasingly casting a glance at the “most read” lists on their own and other websites to work out which stories matter to readers and viewers. And now the audience—which used to know its place—is being asked to act as a kind of journalistic ombudsman, ruling on our credibility (broadcast journalist, 2008).

The result of democratising access to TV news could be political disengagement by the majority and a dumbing down through a popularity contest of stories (online news editor, 2007).

Despite the rhetorical bluster of these statements, they amount to more than straightforward professional defensiveness. In their reference to an audience “which used to know its place” and conflation between democratisation and “dumbing down,” they are seeking to argue for a particular mode of public knowledge: one which is shaped by experts, immune from populist pressures; and disseminated to attentive, but mainly passive recipients. It is a view of citizenship that closes down opportunities for popular involvement in the making of public knowledge by reinforcing the professional claims of experts. The journalists quoted above are right to feel uneasy, for there is, at almost every institutional level in contemporary society, scepticism towards the epistemological authority of expert elites. There is a growing feeling, as expressed by several of our focus group participants, that the news media should be “informative rather than authoritative”; the job of journalists should be to “give the news as raw as it is, without putting their slant on it”; and people should be given “sufficient information” from which “we would be able to form opinions of our own.”

At stake here are two distinct conceptions of authority. The journalists we have quoted are resistant to the democratisation of news: the supremacy of the clickstream (according to which editors raise or lower the profile of stories according to the number of readers clicking on them online); the parity of popular culture with “serious” news; the demands of some audience members for raw news rather than constructed narratives.



Percentage of Respondents Seeing News Stories  
as Inaccurate or Favoring One Side

	1985	1992	2003	2007	2011
<i>News organizations...</i>					
• Get the facts straight	55	49	36	39	25
• Often have inaccurate stories	34	44	56	53	66
• Don't know	11	7	8	8	9
• Are pretty independent	37	35	23	23	15
• Are often influenced by powerful people and organizations	53	58	70	69	80
• Don't know	10	7	7	8	5
<i>On political and social issues, news organizations...</i>					
• Deal fairly with all sides	34	31	26	26	16
• Tend to favor one side	53	63	66	66	77
• Don't know	13	6	8	8	7

Adapted from "Pew Research Center for the People & the Press Report on Views of the News Media, 1985–2011." ©2011 by Pew Research Center.

11

The main purpose of the passage is to

- A) analyze the technological developments that have affected the production, circulation, and reception of news stories.
- B) discuss changes in the perception of the news media as a source of public knowledge.
- C) show how journalists' frames of value influence the production of news stories.
- D) challenge the conventional view that news is a form of public knowledge.

12

According to the passage, which expectation do traditional authorities now face?

- A) They should be uninfluenced by commercial considerations.
- B) They should be committed to bringing about positive social change.
- C) They should be respectful of the difference between public and private knowledge.
- D) They should be transparent about their beliefs and assumptions.

13

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 2-5 ("Unlike . . . people")
- B) Lines 20-21 ("The production . . . process")
- C) Lines 33-38 ("As part . . . decisions")
- D) Lines 43-46 ("Editors . . . viewers")

14

As used in line 24, "common" most nearly means

- A) numerous.
- B) familiar.
- C) widespread.
- D) ordinary.

15

The authors most likely include the extended quotations in lines 43-53 to

- A) present contradictory examples.
- B) cite representative opinions.
- C) criticize typical viewpoints.
- D) suggest viable alternatives.

16

The authors indicate that the public is coming to believe that journalists' reports should avoid

- A) personal judgments about the events reported.
- B) more information than is absolutely necessary.
- C) quotations from authorities on the subject matter.
- D) details that the subjects of news reports wish to keep private.

17

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 12-16 (“Thus . . . them”)
- B) Lines 30-33 (“They . . . others”)
- C) Lines 40-42 (“Not surprisingly . . . authority”)
- D) Lines 70-77 (“There . . . own”)

18

As used in line 74, “raw” most nearly means

- A) unfiltered.
- B) exposed.
- C) harsh.
- D) inexperienced.

19

Based on the table, in which year were people the most trusting of the news media?

- A) 1985
- B) 1992
- C) 2003
- D) 2011

20

Which statement is best supported by information presented in the table?

- A) Between 1985 and 2011, the proportion of inaccurate news stories rose dramatically.
- B) Between 1992 and 2003, the proportion of people who believed that news organizations were biased almost doubled.
- C) Between 2003 and 2007, people’s views of the accuracy, independence, and fairness of news organizations changed very little.
- D) Between 2007 and 2011, people’s perception that news organizations are accurate increased, but people’s perception that news organizations are fair diminished.

21

The 2011 data in the table best serve as evidence of

- A) “political disengagement by the majority” (line 51).
- B) “the professional claims of experts” (lines 65-66).
- C) “scepticism towards the epistemological authority of expert elites” (lines 69-70).
- D) “the supremacy of the clickstream” (line 81).

**Questions 22-32 are based on the following passage.**

This passage is adapted from Elsa Youngsteadt, “Decoding a Flower’s Message.” ©2012 by Sigma Xi, The Scientific Research Society.

Line Texas gourd vines unfurl their large, flared  
blossoms in the dim hours before sunrise. Until they  
close at noon, their yellow petals and mild, squashy  
Line 5 aroma attract bees that gather nectar and shuttle  
pollen from flower to flower. But “when you  
advertise [to pollinators], you advertise in an  
open communication network,” says chemical  
ecologist Ian Baldwin of the Max Planck Institute for  
Chemical Ecology in Germany. “You attract not just  
Line 10 the good guys, but you also attract the bad guys.” For  
a Texas gourd plant, striped cucumber beetles are  
among the very bad guys. They chew up pollen and  
petals, defecate in the flowers and transmit the  
dreaded bacterial wilt disease, an infection that can  
Line 15 reduce an entire plant to a heap of collapsed tissue in  
mere days.

In one recent study, Nina Theis and Lynn Adler  
took on the specific problem of the Texas  
gourd—how to attract enough pollinators but not  
Line 20 too many beetles. The Texas gourd vine’s main  
pollinators are honey bees and specialized squash  
bees, which respond to its floral scent. The aroma  
includes 10 compounds, but the most  
abundant—and the only one that lures squash bees  
Line 25 into traps—is 1,4-dimethoxybenzene.

Intuition suggests that more of that aroma should  
be even more appealing to bees. “We have this  
assumption that a really fragrant flower is going to  
attract a lot of pollinators,” says Theis, a chemical  
Line 30 ecologist at Elms College in Chicopee,  
Massachusetts. But, she adds, that idea hasn’t really  
been tested—and extra scent could well call in more  
beetles, too. To find out, she and Adler planted  
168 Texas gourd vines in an Iowa field and,  
Line 35 throughout the August flowering season, made half  
the plants more fragrant by tucking  
dimethoxybenzene-treated swabs deep inside their  
flowers. Each treated flower emitted about 45 times  
more fragrance than a normal one; the other half of  
Line 40 the plants got swabs without fragrance.

The researchers also wanted to know whether  
extra beetles would impose a double cost by both  
damaging flowers and deterring bees, which might  
not bother to visit (and pollinate) a flower laden with  
Line 45 other insects and their feces. So every half hour  
throughout the experiments, the team plucked all the  
beetles off of half the fragrance-enhanced flowers and  
half the control flowers, allowing bees to respond to  
the blossoms with and without interference by  
Line 50 beetles.

Finally, they pollinated by hand half of the female  
flowers in each of the four combinations of fragrance  
and beetles. Hand-pollinated flowers should develop  
into fruits with the maximum number of seeds,  
Line 55 providing a benchmark to see whether the  
fragrance-related activities of bees and beetles  
resulted in reduced pollination.

“It was very labor intensive,” says Theis.

“We would be out there at four in the morning, three  
Line 60 in the morning, to try and set up before these flowers  
open.” As soon as they did, the team spent the next  
several hours walking from flower to flower,  
observing each for two-minute intervals “and writing  
down everything we saw.”

Line 65 What they saw was double the normal number of  
beetles on fragrance-enhanced blossoms.  
Pollinators, to their surprise, did not prefer the  
highly scented flowers. Squash bees were indifferent,  
and honey bees visited enhanced flowers less often  
Line 70 than normal ones. Theis thinks the bees were  
repelled not by the fragrance itself, but by the  
abundance of beetles: The data showed that the more  
beetles on a flower, the less likely a honey bee was to  
visit it.

Line 75 That added up to less reproduction for  
fragrance-enhanced flowers. Gourds that developed  
from those blossoms weighed 9 percent less and had,  
on average, 20 fewer seeds than those from normal  
flowers. Hand pollination didn’t rescue the seed set,  
Line 80 indicating that beetles damaged flowers directly  
—regardless of whether they also repelled  
pollinators. (Hand pollination did rescue fruit  
weight, a hard-to-interpret result that suggests that  
lost bee visits did somehow harm fruit development.)

85 The new results provide a reason that Texas gourd plants never evolved to produce a stronger scent: “If you really ramp up the odor, you don’t get more pollinators, but you can really get ripped apart by your enemies,” says Rob Raguso, a chemical ecologist  
90 at Cornell University who was not involved in the Texas gourd study.

22

The primary purpose of the passage is to

- A) discuss the assumptions and reasoning behind a theory.
- B) describe the aim, method, and results of an experiment.
- C) present and analyze conflicting data about a phenomenon.
- D) show the innovative nature of a procedure used in a study.

23

As presented in the passage, Theis and Adler’s research primarily relied on which type of evidence?

- A) Direct observation
- B) Historical data
- C) Expert testimony
- D) Random sampling

24

Which statement about striped cucumber beetles can most reasonably be inferred from the passage?

- A) They feed primarily on Texas gourd plants.
- B) They are less attracted to dimethoxybenzene than honey bees are.
- C) They experience only minor negative effects as a result of carrying bacterial wilt disease.
- D) They are attracted to the same compound in Texas gourd scent that squash bees are.

25

The author indicates that it seems initially plausible that Texas gourd plants could attract more pollinators if they

- A) did not have aromatic flowers.
- B) targeted insects other than bees.
- C) increased their floral scent.
- D) emitted more varied fragrant compounds.

26

As used in line 38, “treated” most nearly means

- A) altered.
- B) restored.
- C) provided.
- D) preserved.

27

What did Theis and Adler do as part of their study that most directly allowed Theis to reason that “bees were repelled not by the fragrance itself” (lines 70-71)?

- A) They observed the behavior of bees and beetles both before and after the flowers opened in the morning.
- B) They increased the presence of 1,4-dimethoxybenzene only during the August flowering season.
- C) They compared the gourds that developed from naturally pollinated flowers to the gourds that developed from hand-pollinated flowers.
- D) They gave bees a chance to choose between beetle-free enhanced flowers and beetle-free normal flowers.

28

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 45-50 (“So every . . . beetles”)
- B) Lines 51-53 (“Finally . . . beetles”)
- C) Lines 59-61 (“We would . . . open”)
- D) Lines 76-79 (“Gourds . . . flowers”)

29

The primary function of the seventh and eighth paragraphs (lines 65-84) is to

- A) summarize Theis and Adler’s findings.
- B) describe Theis and Adler’s hypotheses.
- C) illustrate Theis and Adler’s methods.
- D) explain Theis and Adler’s reasoning.

30

In describing squash bees as “indifferent” (line 68), the author most likely means that they

- A) could not distinguish enhanced flowers from normal flowers.
- B) visited enhanced flowers and normal flowers at an equal rate.
- C) largely preferred normal flowers to enhanced flowers.
- D) were as likely to visit beetle-infested enhanced flowers as to visit beetle-free enhanced flowers.

31

According to the passage, Theis and Adler’s research offers an answer to which of the following questions?

- A) How can Texas gourd plants increase the number of visits they receive from pollinators?
- B) Why is there an upper limit on the intensity of the aroma emitted by Texas gourd plants?
- C) Why does hand pollination rescue the fruit weight of beetle-infested Texas gourd plants?
- D) Why do Texas gourd plants stop producing fragrance attractive to pollinators when beetles are present?

32

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 17-20 (“In one . . . beetles”)
- B) Lines 22-25 (“The aroma . . . 1,4-dimethoxybenzene”)
- C) Lines 79-84 (“Hand . . . development”)
- D) Lines 85-86 (“The new . . . scent”)

**Questions 33-42 are based on the following passages.**

Passage 1 is adapted from Abraham Lincoln, “Address to the Young Men’s Lyceum of Springfield, Illinois.” Originally delivered in 1838. Passage 2 is from Henry David Thoreau, “Resistance to Civil Government.” Originally published in 1849.

**Passage 1**

Let every American, every lover of liberty, every well wisher to his posterity, swear by the blood of the Revolution, never to violate in the least particular, the laws of the country; and never to tolerate their  
 5 violation by others. As the patriots of seventy-six did to the support of the Declaration of Independence, so to the support of the Constitution and Laws, let every American pledge his life, his property, and his sacred honor;—let every man remember that to violate the  
 10 law, is to trample on the blood of his father, and to tear the character of his own, and his children’s liberty. Let reverence for the laws, be breathed by every American mother, to the lisping babe, that rattles on her lap—let it be taught in schools, in  
 15 seminaries, and in colleges;—let it be written in Primers, spelling books, and in Almanacs;—let it be preached from the pulpit, proclaimed in legislative halls, and enforced in courts of justice. And, in short, let it become the *political religion* of the nation;  
 20 and let the old and the young, the rich and the poor, the grave and the gay, of all sexes and tongues, and colors and conditions, sacrifice unceasingly upon its altars. . . .

When I so pressingly urge a strict observance of  
 25 all the laws, let me not be understood as saying there are no bad laws, nor that grievances may not arise, for the redress of which, no legal provisions have been made. I mean to say no such thing. But I do mean to say, that, although bad laws, if they exist,  
 30 should be repealed as soon as possible, still while they continue in force, for the sake of example, they should be religiously observed. So also in unprovided cases. If such arise, let proper legal provisions be made for them with the least possible delay; but, till  
 35 then, let them if not too intolerable, be borne with.

There is no grievance that is a fit object of redress by mob law. In any case that arises, as for instance, the promulgation of abolitionism, one of two positions is necessarily true; that is, the thing is right  
 40 within itself, and therefore deserves the protection of all law and all good citizens; or, it is wrong, and therefore proper to be prohibited by legal enactments; and in neither case, is the interposition of mob law, either necessary, justifiable, or excusable.

**Passage 2**

Unjust laws exist; shall we be content to obey them, or shall we endeavor to amend them, and obey them until we have succeeded, or shall we transgress them at once? Men generally, under such a  
 45 government as this, think that they ought to wait until they have persuaded the majority to alter them. They think that, if they should resist, the remedy would be worse than the evil. But it is the fault of the government itself that the remedy is worse than the evil. It makes it worse. Why is it not more apt to  
 50 anticipate and provide for reform? Why does it not cherish its wise minority? Why does it cry and resist before it is hurt? . . .

If the injustice is part of the necessary friction of the machine of government, let it go, let it go; perchance it will wear smooth—certainly the  
 60 machine will wear out. If the injustice has a spring, or a pulley, or a rope, or a crank, exclusively for itself, then perhaps you may consider whether the remedy will not be worse than the evil; but if it is of such a  
 65 nature that it requires you to be the agent of injustice to another, then, I say, break the law. Let your life be a counter friction to stop the machine. What I have to do is to see, at any rate, that I do not lend myself to the wrong which I condemn.

As for adopting the ways which the State has provided for remedying the evil, I know not of such ways. They take too much time, and a man’s life will be gone. I have other affairs to attend to. I came into  
 70 this world, not chiefly to make this a good place to live in, but to live in it, be it good or bad. A man has not everything to do, but something; and because he cannot do everything, it is not necessary that he should do something wrong. . . .



I do not hesitate to say, that those who call  
 80 themselves Abolitionists should at once effectually  
 withdraw their support, both in person and property,  
 from the government . . . and not wait till they  
 constitute a majority of one, before they suffer the  
 right to prevail through them. I think that it is  
 85 enough if they have God on their side, without  
 waiting for that other one. Moreover, any man more  
 right than his neighbors constitutes a majority of one  
 already.

33

In Passage 1, Lincoln contends that breaking the law has which consequence?

- A) It slows the repeal of bad laws.
- B) It undermines and repudiates the nation's values.
- C) It leads slowly but inexorably to rule by the mob.
- D) It creates divisions between social groups.

34

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 9-12 ("let every man . . . liberty")
- B) Lines 20-23 ("and let . . . altars")
- C) Lines 33-35 ("If such . . . borne with")
- D) Lines 36-37 ("There . . . law")

35

As used in line 24, "urge" most nearly means

- A) hasten.
- B) stimulate.
- C) require.
- D) advocate.

36

The sentence in lines 24-28 ("When . . . made") primarily serves which function in Passage 1?

- A) It raises and refutes a potential counterargument to Lincoln's argument.
- B) It identifies and concedes a crucial shortcoming of Lincoln's argument.
- C) It acknowledges and substantiates a central assumption of Lincoln's argument.
- D) It anticipates and corrects a possible misinterpretation of Lincoln's argument.

37

As used in line 32, “observed” most nearly means

- A) followed.
- B) scrutinized.
- C) contemplated.
- D) noticed.

38

In Passage 2, Thoreau indicates that some unjust aspects of government are

- A) superficial and can be fixed easily.
- B) subtle and must be studied carefully.
- C) self-correcting and may be beneficial.
- D) inevitable and should be endured.

39

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 45-48 (“Unjust . . . once”)
- B) Lines 51-52 (“They . . . evil”)
- C) Lines 58-59 (“If the injustice . . . go”)
- D) Lines 75-78 (“A man . . . wrong”)

40

The primary purpose of each passage is to

- A) make an argument about the difference between legal duties and moral imperatives.
- B) discuss how laws ought to be enacted and changed in a democracy.
- C) advance a view regarding whether individuals should follow all of the country's laws.
- D) articulate standards by which laws can be evaluated as just or unjust.

41

Based on the passages, Lincoln would most likely describe the behavior that Thoreau recommends in lines 64-66 ("if it . . . law") as

- A) an excusable reaction to an intolerable situation.
- B) a rejection of the country's proper forms of remedy.
- C) an honorable response to an unjust law.
- D) a misapplication of a core principle of the Constitution.

42

Based on the passages, one commonality in the stances Lincoln and Thoreau take toward abolitionism is that

- A) both authors see the cause as warranting drastic action.
- B) both authors view the cause as central to their argument.
- C) neither author expects the cause to win widespread acceptance.
- D) neither author embraces the cause as his own.

**Questions 43-52 are based on the following passage and supplementary material.**

This passage is adapted from Kevin Bullis, “What Tech Is Next for the Solar Industry?” ©2013 by MIT Technology Review.

Solar panel installations continue to grow quickly, but the solar panel manufacturing industry is in the doldrums because supply far exceeds demand. The poor market may be slowing innovation, but advances continue; judging by the mood this week at the IEEE Photovoltaics Specialists Conference in Tampa, Florida, people in the industry remain optimistic about its long-term prospects.

The technology that’s surprised almost everyone is conventional crystalline silicon. A few years ago, silicon solar panels cost \$4 per watt, and Martin Green, professor at the University of New South Wales and one of the leading silicon solar panel researchers, declared that they’d never go below \$1 a watt. “Now it’s down to something like 50 cents a watt, and there’s talk of hitting 36 cents per watt,” he says.

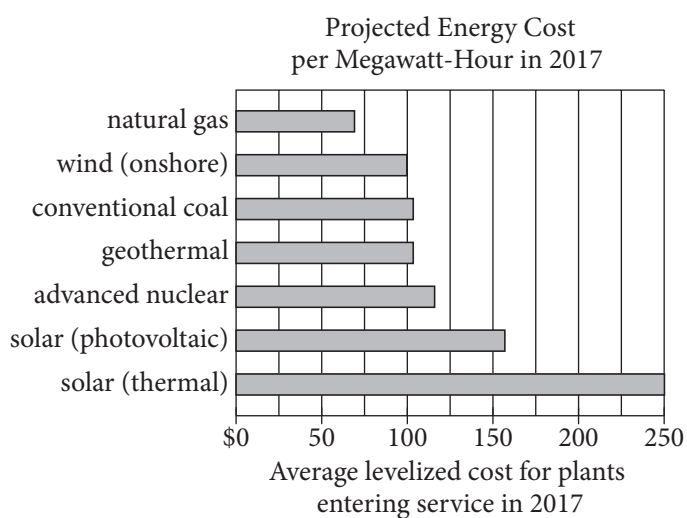
The U.S. Department of Energy has set a goal of reaching less than \$1 a watt—not just for the solar panels, but for complete, installed systems—by 2020. Green thinks the solar industry will hit that target even sooner than that. If so, that would bring the direct cost of solar power to six cents per kilowatt-hour, which is cheaper than the average cost expected for power from new natural gas power plants.

All parts of the silicon solar panel industry have been looking for ways to cut costs and improve the power output of solar panels, and that’s led to steady cost reductions. Green points to something as mundane as the pastes used to screen-print some of the features on solar panels. Green’s lab built a solar cell in the 1990s that set a record efficiency for silicon solar cells—a record that stands to this day. To achieve that record, he had to use expensive lithography techniques to make fine wires for collecting current from the solar cell. But gradual improvements have made it possible to use screen printing to produce ever-finer lines. Recent research suggests that screen-printing techniques can produce lines as thin as 30 micrometers—about the width of the lines Green used for his record solar cells, but at costs far lower than his lithography techniques.

Meanwhile, researchers at the National Renewable Energy Laboratory have made flexible solar cells on a new type of glass from Corning called Willow Glass, which is thin and can be rolled up. The type of solar cell they made is the only current challenger to silicon in terms of large-scale production—thin-film cadmium telluride. Flexible solar cells could lower the cost of installing solar cells, making solar power cheaper.

One of Green’s former students and colleagues, Jianhua Zhao, cofounder of solar panel manufacturer China Sunergy, announced this week that he is building a pilot manufacturing line for a two-sided solar cell that can absorb light from both the front and back. The basic idea, which isn’t new, is that during some parts of the day, sunlight falls on the land between rows of solar panels in a solar power plant. That light reflects onto the back of the panels and could be harvested to increase the power output. This works particularly well when the solar panels are built on sand, which is highly reflective. Where a one-sided solar panel might generate 340 watts, a two-sided one might generate up to 400 watts. He expects the panels to generate 10 to 20 percent more electricity over the course of a year.

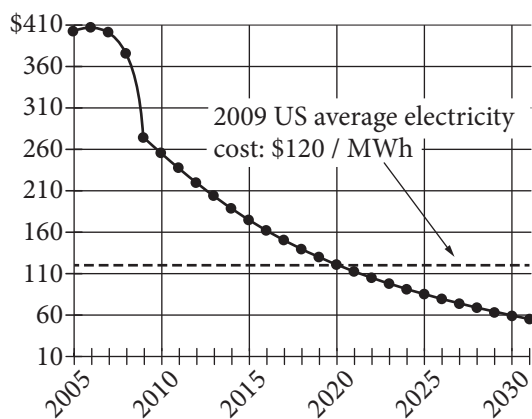
Even longer-term, Green is betting on silicon, aiming to take advantage of the huge reductions in cost already seen with the technology. He hopes to greatly increase the efficiency of silicon solar panels by combining silicon with one or two other semiconductors, each selected to efficiently convert a part of the solar spectrum that silicon doesn’t convert efficiently. Adding one semiconductor could boost efficiencies from the 20 to 25 percent range to around 40 percent. Adding another could make efficiencies as high as 50 percent feasible, which would cut in half the number of solar panels needed for a given installation. The challenge is to produce good connections between these semiconductors, something made challenging by the arrangement of silicon atoms in crystalline silicon.

**Figure 1**

Adapted from Peter Schwartz, "Abundant Natural Gas and Oil Are Putting the Kibosh on Clean Energy." ©2012 by Condé Nast.

**Figure 2**

Solar Photovoltaic Cost per Megawatt-Hour (MWh)  
(Projected beyond 2009. All data in 2009 dollars.)



Adapted from Ramez Naam, "Smaller, Cheaper, Faster: Does Moore's Law Apply to Solar Cells?" ©2011 by Scientific American.

43

The passage is written from the point of view of a

- A) consumer evaluating a variety of options.
- B) scientist comparing competing research methods.
- C) journalist enumerating changes in a field.
- D) hobbyist explaining the capabilities of new technology.

44

As used in line 4, “poor” most nearly means

- A) weak.
- B) humble.
- C) pitiable.
- D) obsolete.

45

It can most reasonably be inferred from the passage that many people in the solar panel industry believe that

- A) consumers don’t understand how solar panels work.
- B) two-sided cells have weaknesses that have not yet been discovered.
- C) the cost of solar panels is too high and their power output too low.
- D) Willow Glass is too inefficient to be marketable.

46

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 1-3 (“Solar . . . demand”)
- B) Lines 10-15 (“A few . . . a watt”)
- C) Lines 22-26 (“If so . . . plants”)
- D) Lines 27-30 (“All . . . reductions”)

47

According to the passage, two-sided solar panels will likely raise efficiency by

- A) requiring little energy to operate.
- B) absorbing reflected light.
- C) being reasonably inexpensive to manufacture.
- D) preventing light from reaching the ground.

48

Which choice provides the best evidence for the answer to the previous question?

- A) Lines 58-61 (“The basic . . . plant”)
- B) Lines 61-62 (“That . . . output”)
- C) Lines 63-64 (“This . . . reflective”)
- D) Lines 64-66 (“Where . . . 400 watts”)

49

As used in line 69, “betting on” most nearly means

- A) dabbling in.
- B) gambling with.
- C) switching from.
- D) optimistic about.

50

The last sentence of the passage mainly serves to

- A) express concern about the limitations of a material.
- B) identify a hurdle that must be overcome.
- C) make a prediction about the effective use of certain devices.
- D) introduce a potential new area of study.

51

According to figure 1, in 2017, the cost of which of the following fuels is projected to be closest to the 2009 US average electricity cost shown in figure 2?

- A) Natural gas
- B) Wind (onshore)
- C) Conventional coal
- D) Advanced nuclear

52

According to figure 2, in what year is the average cost of solar photovoltaic power projected to be equal to the 2009 US average electricity cost?

- A) 2018
- B) 2020
- C) 2025
- D) 2027

**STOP**

**If you finish before time is called, you may check your work on this section only.  
Do not turn to any other section.**

# Writing and Language Test

35 MINUTES, 44 QUESTIONS

Turn to Section 2 of your answer sheet to answer the questions in this section.

## DIRECTIONS

Each passage below is accompanied by a number of questions. For some questions, you will consider how the passage might be revised to improve the expression of ideas. For other questions, you will consider how the passage might be edited to correct errors in sentence structure, usage, or punctuation. A passage or a question may be accompanied by one or more graphics (such as a table or graph) that you will consider as you make revising and editing decisions.

Some questions will direct you to an underlined portion of a passage. Other questions will direct you to a location in a passage or ask you to think about the passage as a whole.

After reading each passage, choose the answer to each question that most effectively improves the quality of writing in the passage or that makes the passage conform to the conventions of standard written English. Many questions include a “NO CHANGE” option. Choose that option if you think the best choice is to leave the relevant portion of the passage as it is.

Questions 1-11 are based on the following passage.

### A Necessary Resource for Science

In the winter of 1968, scientists David Schindler and Gregg Brunskill poured nitrates and phosphates into Lake **1** 227, this is one of the 58 freshwater bodies that compose Canada’s remotely located Experimental Lakes Area. Schindler and Brunskill were contaminating the water not out of malice but in the name of research. While deliberately adding chemical compounds to a lake may seem **2** destructive and irresponsible, this method of experimenting is sometimes the most effective way to influence policy and save the environment from even more damaging pollution.

1

- A) NO CHANGE
- B) 227. Which is one
- C) 227. One
- D) 227, one

2

- A) NO CHANGE
- B) destructive, and irresponsible this method
- C) destructive and, irresponsible, this method
- D) destructive and irresponsible this method,



Schindler and Brunskill were investigating possible causes for the large blooms of blue-green algae, or cyanobacteria, that had been affecting bodies of water such as Lake Erie. **3** In addition to being unsightly and odorous, these algal blooms cause oxygen depletion.

Oxygen depletion kills fish and other wildlife in the lakes.

Just weeks after the scientists added the nitrates and phosphates, the water in Lake 227 turned bright

**4** green. It was thick with: the same type of algal blooms that had plagued Lake Erie.

3

Which choice most effectively combines the underlined sentences?

- A) In addition to being unsightly and odorous, these algal blooms cause oxygen depletion: the result being that it kills fish and other wildlife in the lakes.
- B) In addition to being unsightly and odorous, these algal blooms cause oxygen depletion; the algal blooms cause oxygen depletion that kills fish and other wildlife in the lakes.
- C) In addition to being unsightly and odorous, these algal blooms cause oxygen depletion, and oxygen depletion caused by the algal blooms kills fish and other wildlife in the lakes.
- D) In addition to being unsightly and odorous, these algal blooms cause oxygen depletion, which kills fish and other wildlife in the lakes.

4

- A) NO CHANGE
- B) green: it was thick with
- C) green. It was thick with—
- D) green, it was thick with

5 One mission of the Experimental Lakes Area is to conduct research that helps people better understand threats to the environment. The scientists divided the lake in half by placing a nylon barrier through the narrowest part of its figure-eight shape. In one half of Lake 226, they added phosphates, nitrates, and a source of carbon; in the other, they added just nitrates 6 and a source of carbon was added. Schindler and Brunskill hypothesized that phosphates were responsible for the growth of cyanobacteria. The experiment confirmed their suspicions when the half of the lake containing the phosphates 7 was teeming with blue-green algae.

5

Which choice provides the best transition from the previous paragraph to this one?

- A) NO CHANGE
- B) The Experimental Lakes Area is located in a sparsely inhabited region that experiences few effects of human and industrial activity.
- C) To isolate the cause of the algae, Schindler and Brunskill performed another experiment, this time using Lake 226.
- D) The process by which water becomes enriched by dissolved nutrients, such as phosphates, is called eutrophication.

6

- A) NO CHANGE
- B) and a source of carbon.
- C) plus also a source of carbon.
- D) but also adding a source of carbon.

7

- A) NO CHANGE
- B) were teeming
- C) are teeming
- D) teems

Schindler and Brunskill's findings were **8** shown off by the journal *Science*. The research demonstrated a clear correlation between introducing phosphates and the growth of blue-green algae. **9** For example, legislators in Canada passed laws banning phosphates in laundry detergents, which had been entering the water supply. **10**

8

- A) NO CHANGE
- B) put in the spotlight of
- C) published in
- D) put into

9

- A) NO CHANGE
- B) Similarly,
- C) However,
- D) Subsequently,

10

At this point, the writer wants to add a second policy outcome of the research described. Which choice best accomplishes this goal?

- A) Lake 226 continued to develop blooms of blue-green algae for eight consecutive years after the experiment took place.
- B) In the United States, many individual states have also adopted legislation to eliminate, or at least reduce, phosphorous content in laundry detergents.
- C) In 1974, Schindler initiated a study of the effects of acid rain, using Lake 223 to examine how sulfuric acid altered aquatic ecosystems.
- D) Aerial photos of the lakes taken before and during algal blooms helped convey the effects of phosphates in water to the public.

Experiments like these can help people understand the unintended consequences of using certain household products. **11** Of course, regulating the use of certain chemical compounds can be a controversial issue.

Selectively establishing remote study locations, such as the Experimental Lakes Area, can provide scientists with opportunities to safely conduct controlled research. This research can generate evidence solid enough to persuade policy makers to take action in favor of protecting the larger environment.

11

Which choice most effectively anticipates and addresses a relevant counterargument to the argument in favor of the types of experiments described in the passage?

- A) NO CHANGE
- B) Many companies now offer phosphate-free alternatives for household cleaning products.
- C) Obviously, scientists should not be allowed to randomly perform experiments on just any body of water.
- D) Phosphates are sometimes used in agricultural fertilizers, in addition to being used in cleaning products.

Questions 12-22 are based on the following passage.

**A Little to the Left, but Not Too Much!**

Italy's Tower of Pisa has been leaning southward since the initial **12** stages of it's construction over 800 years ago. **13** Indeed, if the tower's construction had not taken two centuries and involved significant breaks due to war and civil unrest, which allowed the ground beneath the tower to settle, the tower would likely have collapsed before it was completed.

**12**

- A) NO CHANGE
- B) stage's of its'
- C) stage's of it's
- D) stages of its

**13**

- A) NO CHANGE
- B) Therefore,
- C) Nevertheless,
- D) However,

Luckily, the tower survived, and its tilt has made it an Italian **14** icon, it attracts visitors from all over who flock to Pisa to see one of the greatest architectural **15** weirdnesses in the world. **16** By the late twentieth century, the angle of the tower's tilt had reached an astonishing 5.5 degrees; in **17** 1990, Italy's government closed the tower to visitors and appointed a committee to find a way to save it.

14

- A) NO CHANGE
- B) icon, attracting
- C) icon, its attracting
- D) icon; attracting

15

- A) NO CHANGE
- B) deviations
- C) oddities
- D) abnormalities

16

At this point, the writer is considering adding the following sentence.

Unfortunately, the tower's tilt has steadily increased over the centuries, placing the structure in danger of collapse.

Should the writer make this addition here?

- A) Yes, because it provides an important restatement of the main claim in the previous sentence.
- B) Yes, because it establishes an important shift in emphasis in the paragraph's discussion about the tower's tilt.
- C) No, because it interrupts the paragraph's discussion with irrelevant information.
- D) No, because it repeats information that is already presented in the first paragraph.

17

- A) NO CHANGE
- B) 1990, Italy's government, closed
- C) 1990 Italy's government, closed,
- D) 1990: Italy's government closed

The committee was charged with saving the tower without ruining its aesthetic, **18** which no one had yet managed to achieve. The committee's first attempt to reduce the angle of the tower's tilt—placing 600 tons of iron ingots (molded pieces of metal) on the tower's north side to create a counterweight—was derided because the bulky weights ruined the tower's appearance. The attempt at a less visible solution—sinking anchors into the ground below the tower—almost caused the tower to fall.

18

Which choice best supports the main point of the paragraph?

- A) NO CHANGE
- B) although not everyone on the committee agreed completely about what that aesthetic was.
- C) which meant somehow preserving the tower's tilt while preventing that tilt from increasing and toppling the tower.
- D) which included the pristine white marble finish that has come to be widely associated with the tower's beauty.

[1] Enter committee member John Burland, **19** he is a geotechnical engineer from England who saved London’s clock tower Big Ben from collapse. [2] Burland began a years-long process of drilling out small amounts of soil from under the tower **20** that took several years to complete and then monitoring the tower’s resulting movement. [3] Twice daily, Burland evaluated these movements and made recommendations as to how much soil should be removed in the next drilling. [4] By 2001, almost 77 tons of soil had been removed, and the tower’s tilt had decreased by over 1.5 degrees; the ugly iron weights were removed, and the tower was reopened to visitors. [5] Burland **21** advocated using soil extraction: removing small amounts of soil from under the tower’s north side, opposite its tilt, to enable gravity to straighten the tower. **22**

The tower’s tilt has not increased since, and the committee is confident that the tower will be safe for another 200 years. Burland is now working on a more permanent solution for keeping the tower upright, but he is adamant that the tower never be completely straightened. In an interview with PBS’s *Nova*, Burland explained that it is very important “that we don’t really change the character of the monument. That would be quite wrong and quite inappropriate.”

19

- A) NO CHANGE
- B) Burland is
- C) his being
- D) DELETE the underlined portion.

20

- A) NO CHANGE
- B) —taking several years to complete—
- C) that took him several years to complete
- D) DELETE the underlined portion.

21

- A) NO CHANGE
- B) advocated to use
- C) advocated the using of
- D) advocating to use

22

To make this paragraph most logical, sentence 5 should be

- A) placed after sentence 1.
- B) placed after sentence 2.
- C) placed after sentence 3.
- D) DELETED from the paragraph.



Questions 23-33 are based on the following passage and supplementary material.

### The Physician Assistant Will See You Now

**23** The term “paramedics” refers to health care workers who provide routine and clinical services. While the pressures of an aging population, insurance reforms, and health epidemics have increased demand for care, the supply of physicians is not expected to **24** keep pace. The Association of American Medical Colleges predicts a shortage of over 90,000 physicians by 2020; by 2025, that number could climb to more than 130,000. In some parts of the country, shortages are already a sad fact of life. A 2009 report by the Bureau of Health Professions notes that although a fifth of the US population lives in rural areas, less than a tenth of US physicians serves that population. Because a traditionalist response to the crisis—**25** amping up medical-college enrollments and expanding physician training programs—is too slow and costly to address the near-term problem, alternatives are being explored. One promising avenue has been greater reliance on physician assistants (PAs).

23

Which choice is the best introduction to the paragraph?

- A) NO CHANGE
- B) For many Americans, finding a physician is likely to become a growing challenge.
- C) Getting treatment for an illness usually requires seeing either a general practitioner or a specialist.
- D) Worldwide the costs of health care are increasing at an alarming rate.

24

- A) NO CHANGE
- B) maintain the tempo.
- C) get in line.
- D) move along.

25

- A) NO CHANGE
- B) bolstering
- C) arousing
- D) revving up

26 By virtue of 27 there medical training, PAs can perform many of the jobs traditionally done by doctors, including treating chronic and acute conditions, performing minor 28 surgeries: and prescribing some medications. However, although well 29 compensated earning in 2012 a median annual salary of \$90,930, PAs cost health care providers less than do the physicians who

26

At this point, the writer is considering adding the following sentence.

Several factors argue in favor of such an expanded role.

Should the writer make this addition here?

- A) Yes, because it introduces a counterargument for balance.
- B) Yes, because it frames the points that the paragraph will examine.
- C) No, because it does not specify the education required to be a PA.
- D) No, because it presents information that is only tangential to the main argument.

27

- A) NO CHANGE
- B) they're
- C) their
- D) his or her

28

- A) NO CHANGE
- B) surgeries; and
- C) surgeries, and,
- D) surgeries, and

29

- A) NO CHANGE
- B) compensated (earning in 2012 a median annual salary of \$90,930),
- C) compensated, earning in 2012 a median annual salary of \$90,930
- D) compensated: earning in 2012 a median annual salary of \$90,930,

might otherwise undertake these tasks. Moreover, the training period for PAs is markedly shorter than

**30** those for physicians—two to three years versus the seven to eleven required for physicians.

Physician assistants already offer vital primary care in many locations. Some 90,000 PAs were employed nationwide in 2012. Over and above their value in partially compensating for the general physician shortage has been their extraordinary contribution to rural health care. A recent review of the scholarly literature by Texas researchers found that PAs lend cost-efficient, widely appreciated services in underserved areas.

**31** In addition, rural-based PAs often provide a broader spectrum of such services than do their urban and suburban counterparts, possibly as a consequence of the limited pool of rural-based physicians.

30

- A) NO CHANGE
- B) that compared with
- C) that for
- D) DELETE the underlined portion.

31

- A) NO CHANGE
- B) Thus,
- C) Despite this,
- D) On the other hand,

Increasingly, PAs and other such medical practitioners have become a critical complement to physicians. A 2013 RAND Corporation report estimates that while the number of primary care physicians will increase slowly from 2010 to 2025, the number of physician assistants and nurse-practitioners in primary care will grow at much faster rates. **32** Both by merit and from necessity, PAs are likely to greet more **33** patience than ever before.

Supply of Physicians, Physician Assistants,  
and Nurse-Practitioners in Primary Care  
Clinical Practice in 2010 and 2025

Provider type	2010		2025 (predicted)	
	Number	Percent of total	Number	Percent of total
Physicians	210,000	71	216,000	60
Physician assistants	30,000	10	42,000	12
Nurse-practitioners	56,000	19	103,000	28
Total	296,000	100	361,000	100

Adapted from David I. Auerbach et al., "Nurse-Managed Health Centers and Patient-Centered Medical Homes Could Mitigate Expected Primary Care Physician Shortage." ©2013 by Project HOPE: The People-to-People Health Foundation, Inc.

32

At this point, the writer is considering adding the following sentence.

In fact, according to the data presented in the table, physician assistants will likely outnumber physicians by 2025.

Should the writer make this addition here?

- A) Yes, because it provides additional support for the main point of the paragraph.
- B) Yes, because it addresses a possible counterargument to the writer's main claim.
- C) No, because it is not an accurate interpretation of the data.
- D) No, because it introduces irrelevant information that interrupts the flow of the passage.

33

- A) NO CHANGE
- B) patience, than
- C) patients then
- D) patients than

Questions 34-44 are based on the following passage.

**Gold into Silver: The “Reverse Alchemy” of Superhero Comics History**

**34** Popular film franchises are often “rebooted” in an effort to make their characters and stories fresh and relevant for new audiences. Superhero comic books are periodically reworked to try to increase their appeal to contemporary readers. This practice is almost as **35** elderly as the medium itself and has in large part established the “ages” that compose comic book history. The shift from the Golden to the Silver Age is probably the most successful **36** example: of publishers responding to changing times and tastes.

34

Which choice most effectively combines the underlined sentences?

- A) In an effort to make their characters and stories fresh and relevant for new audiences, popular film franchises, which are often “rebooted,” are similar to superhero comic books, which are periodically reworked to try to increase their appeal to contemporary readers.
- B) Just as popular film franchises are often “rebooted” in an effort to make their characters and stories fresh and relevant for new audiences, superhero comic books are periodically reworked to try to increase their appeal to contemporary readers.
- C) Superhero comic books are periodically reworked to try to increase their appeal to contemporary readers, while popular film franchises are often “rebooted” in an effort to make their characters and stories fresh and relevant for new audiences.
- D) Superhero comic books are much like popular film franchises in being often “rebooted” in an effort to make their characters and stories fresh and relevant for new audiences and periodically reworked to try to increase their appeal to contemporary readers.

35

- A) NO CHANGE
- B) old
- C) mature
- D) geriatric

36

- A) NO CHANGE
- B) example, of publishers
- C) example of publishers,
- D) example of publishers

The start of the first (“Golden”) age of comic books is often dated to 1938 with the debut of Superman in *Action Comics* #1. Besides beginning the age, Superman in many respects defined it, becoming the model on which many later superheroes were based. His characterization, as established in *Superman* #1 (1939), was relatively simple. He could “hurdle skyscrapers” and “leap an eighth of a mile”; “run faster than a streamline train”; withstand anything less than a “bursting shell”; and **37** lift a car over his head. Sent to Earth from the “doomed planet” Krypton, he was raised by human foster parents, whose love helped infuse him with an unapologetic desire to “benefit mankind.” Admirable but aloof, the Golden Age Superman was arguably more paragon than character, a problem only partially solved by giving him a human alter ego. Other Golden Age superheroes were similarly archetypal: Batman was a crime-fighting millionaire, Wonder Woman a warrior princess from a mythical island.

37

Which choice is most consistent with the previous examples in the sentence?

- A) NO CHANGE
- B) hold down a regular job as a newspaper reporter.
- C) wear a bright blue costume with a flowing red cape.
- D) live in the big city of Metropolis instead of the small town where he grew up.

By contrast, the second (“Silver”) age of comics was marked by characters that, though somewhat simplistic by today’s standards, **38** were provided with origin stories often involving scientific experiments gone wrong. In addition to super villains, the new, soon-to-be-iconic characters of the **39** age: Spider-Man, the Fantastic Four, and the Hulk among them—had to cope with mundane, real-life problems, including paying the rent, dealing with family squabbles, and facing anger, loneliness, and ostracism. Their interior lives were richer and their motivations more complex. Although sales remained strong for Golden Age stalwarts Superman and, to a lesser extent, Batman, **40** subsequent decades would show the enduring appeal of these characters.

38

Which choice most effectively sets up the main idea of the following two sentences?

- A) NO CHANGE
- B) reflected the increasing conservatism of the United States in the 1950s.
- C) engaged in bizarre adventures frequently inspired by science fiction.
- D) were more “realistic” than their Golden Age counterparts.

39

- A) NO CHANGE
- B) age;
- C) age,
- D) age—

40

The writer wants a conclusion to the sentence and paragraph that logically completes the discussion of the Silver Age and provides an effective transition into the next paragraph. Which choice best accomplishes these goals?

- A) NO CHANGE
- B) the distinctions between later stages of comic book history are less well defined than the one between the Golden and Silver Ages.
- C) readers increasingly gravitated to the upstarts as the 1960s and the Silver Age drew to a close.
- D) these characters themselves underwent significant changes over the course of the Silver Age.

More transformations would take place in the medium as the Silver Age gave way to the Bronze and Modern (and possibly Postmodern) Ages. Such efforts **41** have yielded diminishing returns, as even the complete relaunch of DC **42** Comics' superhero's, line in 2011 has failed to arrest the steep two-decade decline of comic book sales. For both commercial and, arguably, creative reasons, **43** then, no transition was more successful than **44** those from the Golden to Silver Age.

41

- A) NO CHANGE
- B) would have yielded
- C) were yielding
- D) will yield

42

- A) NO CHANGE
- B) Comic's superhero's
- C) Comics superhero's
- D) Comics' superhero

43

- A) NO CHANGE
- B) however,
- C) nevertheless,
- D) yet,

44

- A) NO CHANGE
- B) these
- C) that
- D) DELETE the underlined portion.

**STOP**

**If you finish before time is called, you may check your work on this section only.  
Do not turn to any other section.**



**No Test Material On This Page**