

DIGITAL SAT SIMULATION

Table of Contents

<i>R&W Section</i>	2
<i>Math Section</i>	17
<i>Answer Sheet R&W</i>	27
<i>Answer Sheet Math</i>	32

R&W Section

Module 1

Exercise 1: Vocabulary in Context

Question 1

Read the following passage and answer the question below:

"City planners argue that adding pocket parks to dense neighborhoods can have a salutary effect, offering residents small green spaces for rest and social connection."

As used in the passage, "salutary" most nearly means

Choices

- A. decorative
- B. beneficial
- C. temporary
- D. controversial

Exercise 2: Main Idea

Question 2

Read the following passage and answer the question below:

"Over the past decade, many museums have redesigned exhibit labels to use plain language and add context about how collections were acquired. These changes aim to make galleries more accessible to first-time visitors while acknowledging the complex histories behind the artifacts on display."

Which choice best expresses the main idea of the passage?

Choices

- A. Museums are collecting fewer artifacts than before.
- B. Museums have reduced the number of labels to avoid clutter.
- C. Museums are revising labels to welcome new audiences and provide historical context.
- D. Museums have decided to focus solely on contemporary art.

Exercise 3: Sentence Boundaries

Question 3

Read the following passage and answer the question below:

"The student newspaper received dozens of letters about the cafeteria's new policy some praised the healthier menu, others objected to higher prices."

Which choice best corrects the sentence while preserving its meaning?

Choices

- A. The student newspaper received dozens of letters about the cafeteria's new policy, some praised the healthier menu, others objected to higher prices.
- B. The student newspaper received dozens of letters about the cafeteria's new policy; some praised the healthier menu, others objected to higher prices.
- C. The student newspaper received dozens of letters about the cafeteria's new policy. Some praised the healthier menu; others objected to higher prices.
- D. The student newspaper received dozens of letters about the cafeteria's new policy and

some praised the healthier menu, others objected to higher prices.

Exercise 4: Concision and Clarity

Question 4

Read the following passage and answer the question below:

"The committee reached a consensus opinion that was unanimous in nature to postpone the festival until spring."

Which choice is the most concise and clear version of the sentence?

Choices

- A. The committee reached a unanimous consensus opinion to postpone the festival until spring.
- B. The committee unanimously agreed to postpone the festival until spring.
- C. The committee had a consensus, which was unanimous, to postpone the festival until spring.
- D. The committee decided in a way that was unanimous that the festival would be postponed until spring.

Exercise 5: Data-in-Text Inference

Question 5

Read the following passage and answer the question below:

"A district report states that after introducing later start times, average first-period attendance rose from 88% in September to 93% in October. Meanwhile, tardy arrivals decreased from 60 per week to 35 per week."

Which statement is best supported by the information in the passage?

Choices

- A. Later start times caused grades to improve in all classes.
- B. Attendance and punctuality both improved after the change.
- C. The number of enrolled students increased from September to October.
- D. Teachers reported fewer homework assignments in October.

Exercise 6: Author's Purpose

Question 6

Read the following passage and answer the question below:

"In her editorial, the principal describes the school's new phone policy, explains why it was implemented, and invites families to share feedback after the first month."

What is the author's primary purpose?

Choices

- A. To criticize student behavior
- B. To analyze nationwide phone usage trends
- C. To inform and solicit responses about a policy change
- D. To narrate a personal experience with technology

Exercise 7: Pronoun Agreement

Question 7

Read the following passage and answer the question below:

"Every member of the robotics team must submit their safety waiver before using the workshop."

Which choice best maintains correct pronoun agreement and formal tone?

Choices

- A. Every member of the robotics team must submit their safety waiver before using the workshop.
- B. Every member of the robotics team must submit his or her safety waiver before using the workshop.
- C. Each members of the robotics team must submit their safety waiver before using the workshop.
- D. All member of the robotics team must submit his or her safety waiver before using the workshop.

Exercise 8: Transitions and Structure

Question 8

Read the following passage and answer the question below:

"The city restored bus service on several routes last winter. _____, weekend ridership increased by nearly 15 percent."

Which choice most effectively completes the sentence?

Choices

- A. Nevertheless
- B. For example
- C. As a result
- D. In contrast

Exercise 9: Best Evidence for a Claim

Question 9

Read the following passage and answer the question below:

"Some community gardens thrive because they provide more than fresh produce; they also create places where neighbors meet, share tips, and organize events."

Which choice provides the best evidence for the claim that community gardens strengthen social connections?

Choices

- A. Gardeners often prefer heirloom tomato varieties.
- B. Many gardens install drip irrigation to conserve water.
- C. Neighbors meet, share tips, and organize events in the gardens.
- D. City permits are required to start a community garden.

Exercise 10: Vocabulary in Context

Question 10

Read the following passage and answer the question below:

"The scientist's explanation was lauded for its lucidity, making even complex theories understandable to non-specialists."

As used in the passage, "lucidity" most nearly means

Choices

- A. brevity
- B. clarity
- C. mystery
- D. difficulty

Exercise 11: Tone and Purpose

Question 11

Read the following passage and answer the question below:

"In announcing the new policy, the mayor struck a tone that was both optimistic about future growth and cautious about unforeseen challenges."

Which best describes the mayor's tone?

Choices

- A. Cynical and dismissive
- B. Optimistic yet cautious
- C. Indifferent and neutral
- D. Humorous and lighthearted

Exercise 12: Structure/Transition

Question 12

Read the following passage and answer the question below:

"The study revealed that students who slept longer performed better on memory tests. _____, those who routinely had less sleep showed lower scores."

Which choice best completes the sentence?

Choices

- A. For example
- B. Meanwhile
- C. Conversely
- D. In addition

Exercise 13: Main Idea

Question 13

Read the following passage and answer the question below:

"Though many dismiss handwriting as outdated in the digital age, researchers note that writing by hand strengthens memory and comprehension in ways typing does not."

What is the main idea of the passage?

Choices

- A. Handwriting is less practical than typing.
- B. Typing and handwriting have equal benefits.
- C. Handwriting offers unique cognitive advantages.
- D. Typing should replace handwriting in schools.

Exercise 14: Inference

Question 14

Read the following passage and answer the question below:

"While the concert was scheduled to begin at 7 p.m., the seats remained half-empty until nearly 7:30."

What can reasonably be inferred from the passage?

Choices

- A. The concert was canceled.
- B. Many attendees arrived later than 7 p.m.
- C. Tickets had not been sold in advance.
- D. The performers delayed the concert by an hour.

Exercise 15: Data-in-Text

Question 15

Read the following passage and answer the question below:

"A recent survey found that 70% of students preferred studying with background music, while 30% preferred silence."

Which statement is supported by the survey?

Choices

- A. Most students favor music while studying.
- B. Silence is more popular than music.
- C. Music harms concentration.
- D. Equal numbers of students prefer music and silence.

Exercise 16: Sentence Boundaries

Question 16

Read the following passage and answer the question below:

"The project was ambitious it required months of preparation and teamwork."

Which choice correctly revises the sentence?

Choices

- A. The project was ambitious, it required months of preparation and teamwork.
- B. The project was ambitious. It required months of preparation and teamwork.
- C. The project was ambitious; and required months of preparation and teamwork.
- D. The project was ambitious: it required months of preparation and teamwork.

Exercise 17: Verb Agreement

Question 17

Read the following passage and answer the question below:

"Neither the teacher nor the students _____ aware of the schedule change."

Which verb correctly completes the sentence?

Choices

- A. was
- B. were
- C. is
- D. has been

Exercise 18: Concision and Clarity

Question 18

Read the following passage and answer the question below:

"The report, which was written by the committee in a collaborative effort together, outlined the proposed changes."

Which choice best improves the sentence?

Choices

- A. The report, written collaboratively by the committee, outlined the proposed changes.
- B. The report that was written by the committee together, outlined the proposed changes.
- C. The report was written by the committee in a collaborative effort together, and it outlined the proposed changes.
- D. The report, which the committee wrote together with collaboration, outlined the proposed changes.

Exercise 19: Vocabulary in Context

Question 19

Read the following passage and answer the question below:

"The scientist emphasized the importance of conducting meticulous measurements, noting that even a small error could affect the entire experiment."

In this context, what does "meticulous" most nearly mean?

Choices

- A. Casual
- B. Careful
- C. Random
- D. Hasty

Exercise 20: Tone and Purpose

Question 20

Read the following passage and answer the question below:

"The editor praised the young author's debut novel for its originality, yet acknowledged that some sections lacked clarity and polish."

What is the author's tone toward the novel?

Choices

- A. Completely dismissive
- B. Balanced and evaluative
- C. Entirely celebratory
- D. Indifferent

Exercise 21: Structure/Transition

Question 21

Read the following passage and answer the question below:

"Many cities are expanding bike lanes to reduce traffic congestion. _____, residents who commute by car argue that this reduces available road space."

Which transition best completes the sentence?

Choices

- A. Moreover
- B. For example
- C. However
- D. Similarly

Exercise 22: Main Idea

Question 22

Read the following passage and answer the question below:

"Studies show that students who sleep at least eight hours a night tend to perform better on memory-based tasks than those who sleep less. Adequate sleep is critical for cognitive performance."

What is the main idea of the passage?

Choices

- A. Students dislike studying for memory-based tasks.
- B. Students who sleep less are always less intelligent.
- C. Getting sufficient sleep improves academic performance.
- D. Cognitive performance is unrelated to sleep.

Exercise 23: Inference

Question 23

Read the following passage and answer the question below:

"During the drought, the river's water level dropped dramatically, exposing rocks that had been hidden for decades."

What can be reasonably inferred from this passage?

Choices

- A. The drought caused the river to dry up entirely.
- B. The drought reduced the water level enough to reveal hidden features.
- C. The drought improved water clarity in the river.
- D. The drought increased rainfall in nearby regions.

Exercise 24: Data-in-Text

Question 24

Read the following passage and answer the question below:

"A recent survey showed that 60% of students preferred digital textbooks, while 40% still favored printed versions."

Which statement is supported by the survey?

Choices

- A. Most students prefer digital textbooks.
- B. Most students prefer printed textbooks.
- C. Students dislike both digital and printed textbooks.
- D. Digital and printed textbooks are equally popular.

Exercise 25: Sentence Boundaries

Question 25

Read the following passage and answer the question below:

"The concert tickets sold out quickly many fans were left disappointed."

Which is the best revision?

Choices

- A. The concert tickets sold out quickly, many fans were left disappointed.
- B. The concert tickets sold out quickly. Many fans were left disappointed.
- C. The concert tickets sold out quickly; which left many fans disappointed.
- D. The concert tickets sold out quickly, and many fans were left disappointed.

Exercise 26: Verb Agreement

Question 26

Read the following passage and answer the question below:

"The group of students are planning their project presentation for next week."

Which correction should be made to the underlined word?

Choices

- A. Change *are* to *is*
- B. Change *are* to *were*
- C. Change *are* to *have been*
- D. No change

Exercise 27: Concision and Clarity

Question 27

Read the following passage and answer the question below:

"The reason why the committee decided to postpone the meeting was because they needed more time to review the reports."

Which revision is most concise while preserving the meaning?

Choices

- A. The committee decided to postpone the meeting because they needed more time to review the reports.
- B. The committee, deciding to postpone, needed more time to review the reports.
- C. The reason the committee postponed the meeting was for the reviewing of the reports.
- D. To postpone the meeting was the decision of the committee, needing more time to review reports.

Module 2

Exercise 28: Vocabulary in Context

Question 28

Read the following passage and answer the question below:

*"The scientist's explanation was so **opaque** that even colleagues struggled to grasp her central point."*

As used in the passage, "opaque" most nearly means

Choices

- A. transparent
- B. unclear
- C. luminous
- D. persuasive

Exercise 29: Tone and Purpose

Question 29

Read the following passage and answer the question below:

"In her editorial, the author acknowledged the impressive scale of the new infrastructure project, yet her diction suggested unease about its long-term financial consequences."

Which best describes the author's tone?

Choices

- A. unconditionally celebratory
- B. cautiously critical
- C. detached and objective
- D. dismissive and mocking

Exercise 30: Structure/Transition

Question 30

Read the following passage and answer the question below:

"The museum reported record attendance this year. _____, several local businesses credited exhibitions with boosting neighborhood revenue."

Which choice most logically completes the text?

Choices

- A. Therefore
- B. However
- C. Meanwhile
- D. Nevertheless

Exercise 31: Main Idea

Question 31

Read the following passage and answer the question below:

"Despite significant investments in digital tools, surveys reveal that many teachers still favor traditional textbooks, citing ease of annotation and classroom management."

What is the main idea of the passage?

Choices

- A. Digital tools are universally embraced in classrooms.
- B. Teachers continue to value traditional resources despite new technology.
- C. Classroom management has become less important over time.
- D. Surveys show no significant differences between digital and print tools.

Exercise 32: Inference

Question 32

Read the following passage and answer the question below:

"The politician praised renewable energy projects in urban areas but remained silent on rural initiatives, a choice that drew criticism from environmental groups."

What can be inferred from the passage?

Choices

- A. The politician supports both urban and rural renewable projects equally.
- B. Environmental groups interpreted the omission as a sign of neglect.
- C. The politician opposes renewable energy altogether.
- D. Rural initiatives have already achieved complete success.

Exercise 33: Data-in-Text

Question 33

Read the following passage and answer the question below:

"A report stated: In 2018, 45% of households recycled regularly; in 2022, that figure rose to 60%."

Which statement best aligns with the report?

Choices

- A. Recycling rates decreased between 2018 and 2022.
- B. A majority of households recycled regularly by 2022.
- C. Less than half of households recycled in both years.
- D. Recycling remained constant from 2018 to 2022.

Exercise 34: Sentence Boundaries

Question 34

Read the following passage and answer the question below:

"The committee reviewed the proposal it was incomplete and required revisions."

Which option best corrects the sentence?

Choices

- A. The committee reviewed the proposal; it was incomplete and required revisions.

- B. The committee reviewed the proposal, it was incomplete and required revisions.
- C. The committee reviewed the proposal it was incomplete, and required revisions.
- D. The committee reviewed the proposal and incomplete requiring revisions.

Exercise 35: Verb/Pronoun Agreement

Question 35

Read the following passage and answer the question below:

"Each of the athletes on the team were preparing their equipment for the tournament."

Which revision corrects the error?

Choices

- A. Each of the athletes on the team were preparing his or her equipment for the tournament.
- B. Each of the athletes on the team was preparing his or her equipment for the tournament.
- C. All of the athletes on the team was preparing equipment for the tournament.
- D. Each of the athletes on the team were preparing equipment for the tournament.

Exercise 36: Expression of Ideas

Question 36

Read the following passage and answer the question below:

"The study demonstrated that bees are essential pollinators, they contribute to agricultural productivity, and also, bees are critical for maintaining biodiversity."

Which choice best improves the concision and clarity of the sentence?

Choices

- A. The study demonstrated that bees are essential pollinators, they contribute to agricultural productivity, and also, bees are critical for maintaining biodiversity.
- B. The study demonstrated that bees are essential pollinators and contribute to both agricultural productivity and biodiversity.
- C. The study demonstrated that bees are essential pollinators because bees contribute to agricultural productivity and biodiversity.
- D. The study demonstrated that bees are essential pollinators, and bees are critical to agricultural productivity, and bees are essential for biodiversity.

Exercise 37: Vocabulary in Context

Question 37

Read the following passage and answer the question below:

*"The committee's report was filled with **equivocal** statements, leaving readers uncertain whether the recommendations supported or opposed the proposed policy."*

In this context, what does "equivocal" most nearly mean?

Choices

- A. Clear
- B. Ambiguous
- C. Enthusiastic
- D. Detailed

Exercise 38: Tone and Purpose

Question 38

Read the following passage and answer the question below:

"While the research outlines promising medical applications, the author remains skeptical, emphasizing that long-term trials are still lacking."

What best describes the author's tone?

Choices

- A. Dismissive
- B. Cautiously critical
- C. Neutral
- D. Overly enthusiastic

Exercise 39: Structure/Transition

Question 39

Read the following passage and answer the question below:

"Electric vehicle sales have risen sharply in the past decade. _____, charging infrastructure has not expanded at the same pace, leaving many potential buyers hesitant."

Which transition best fits the blank?

Choices

- A. Likewise
- B. However
- C. Therefore
- D. In addition

Exercise 40: Main Idea

Question 40

Read the following passage and answer the question below:

"The town's economy once relied heavily on coal mining, but as mines closed, residents sought new opportunities in tourism, small-scale farming, and technology startups."

What is the main idea of the passage?

Choices

- A. Coal mining is expected to return as the main economic driver.
- B. The town has shifted from coal mining to diversifying its economy.
- C. Technology startups have replaced all other industries in the town.
- D. Small-scale farming failed to help the town recover economically.

Exercise 41: Inference

Question 41

Read the following passage and answer the question below:

"When the museum introduced free admission days, attendance doubled within a month. Nearby restaurants also reported a noticeable increase in evening customers."

What can reasonably be inferred from this passage?

Choices

- A. Free admission days caused increased traffic to local businesses.
- B. Restaurants partnered financially with the museum.
- C. Evening customers at restaurants declined before free admission.
- D. The museum is considering permanent free admission.

Exercise 42: Data-in-Text

Question 42

Read the following passage and answer the question below:

"A survey showed that 65% of respondents preferred online courses, while 35% chose in-person classes."

Which conclusion is best supported by the data?

Choices

- A. The majority preferred online courses.
- B. Most respondents rejected online learning.
- C. Online and in-person preferences were equal.
- D. In-person classes were overwhelmingly favored.

Exercise 43: Sentence Boundaries

Question 43

Read the following passage and answer the question below:

"Many students are eager to study abroad, opportunities for financial aid remain limited."

Which option best corrects the sentence?

Choices

- A. Many students are eager to study abroad opportunities for financial aid remain limited.
- B. Many students are eager to study abroad; opportunities for financial aid remain limited.
- C. Many students are eager to study abroad, opportunities for financial aid remain limited?
- D. Many students are eager to study abroad but opportunities for financial aid remain limited.

Exercise 44: Verb/Pronoun Agreement

Question 44

Read the following passage and answer the question below:

"Neither of the candidates have presented their plan clearly."

Which revision best corrects the error?

Choices

- A. Neither of the candidates have presented his or her plan clearly.
- B. Neither of the candidates has presented their plan clearly.
- C. Neither of the candidates has presented his or her plan clearly.
- D. Neither of the candidates have presented its plan clearly.

Exercise 45: Expression of Ideas

Question 45

Read the following passage and answer the question below:

"Due to the fact that students were late for the lecture, the professor decided to repeat the introduction again."

Which revision is most concise while maintaining the meaning?

Choices

- A. Because students were late, the professor repeated the introduction.
- B. Students being late caused the professor to repeat the introduction again.
- C. The professor repeated again the introduction due to late students.
- D. Because of lateness, the professor decided to repeat again the introduction.

Exercise 46: Vocabulary in Context

Question 46

Read the following passage and answer the question below:

*"The committee's report was lauded for its **lucid** explanations, making complex policy details accessible to the general public."*

In this context, the word "lucid" most nearly means

Choices

- A. brief
- B. clear
- C. uncertain
- D. lengthy

Exercise 47: Tone and Purpose

Question 47

Read the following passage and answer the question below:

"Although the author admires the technological achievements of the space program, she underscores the immense financial burden it places on taxpayers."

Which best describes the author's tone?

Choices

- A. Unquestionably enthusiastic
- B. Cautiously optimistic
- C. Admiring yet critical
- D. Indifferent

Exercise 48: Structure/Transition

Question 48

Read the following passage and answer the question below:

"The population of the city has grown rapidly in the past decade. _____, housing construction has failed to keep pace, leading to higher rents."

Which transition best completes the sentence?

Choices

- A. Similarly
- B. However
- C. For example
- D. Consequently

Exercise 49: Main Idea

Question 49

Read the following passage and answer the question below:

"A recent study of migratory birds reveals that urban light pollution disrupts their navigation systems, causing delays and increased mortality. Conservationists urge stricter lighting regulations to mitigate these effects."

What is the main idea of the passage?

Choices

- A. Migratory birds adapt quickly to urban environments.
- B. Light pollution creates serious risks for migratory birds.
- C. Conservationists oppose urban development projects.
- D. Birds avoid cities during migration.

Exercise 50: Inference

Question 50

Read the following passage and answer the question below:

"During the factory tour, visitors were shown machinery running at half capacity. The guide noted this was unusual, as demand had been unusually low for weeks."

What can be reasonably inferred from the passage?

Choices

- A. The factory often operates at maximum output.
- B. The factory will likely shut down permanently.
- C. The machinery is too outdated to run efficiently.
- D. The guide misled the visitors about production.

Exercise 51: Data-in-Text

Question 51

Read the following passage and answer the question below:

"The survey indicated that 40% of respondents favored expanding public parks, 35% supported increasing funding for libraries, and 25% preferred new sports facilities."

Based on the survey, which initiative had the least support?

Choices

- A. Expanding public parks
- B. Increasing library funding
- C. New sports facilities
- D. Equal support for all three initiatives

Exercise 52: Sentence Boundaries

Question 52

Read the following passage and answer the question below:

"Many people value remote work for its flexibility, others argue it reduces collaboration."

Which revision best corrects the sentence boundary error?

Choices

- A. Many people value remote work for its flexibility others argue it reduces collaboration.
- B. Many people value remote work for its flexibility; others argue it reduces collaboration.
- C. Many people value remote work for its flexibility, others argue that it reduces collaboration.
- D. Many people value remote work for its flexibility and others argue reduces collaboration.

Exercise 53: Verb/Pronoun Agreement

Question 53

Read the following passage and answer the question below:

"Neither of the managers _____ willing to compromise, and each stuck firmly to _____ position."

Which choice correctly completes the sentence?

Choices

- A. were / their
- B. was / their
- C. was / his or her
- D. were / his or her

Exercise 54: Expression of Ideas

Question 54

Read the following passage and answer the question below:

"Due to the fact that traffic delays are frequent in the morning, commuters should leave earlier in order to ensure timely arrival."

Which is the most concise and clear revision?

Choices

- A. Because traffic delays are frequent, commuters should leave earlier to ensure timely arrival.
- B. Commuters, due to traffic delays in the morning, should leave earlier in order to ensure timely arrival.
- C. Commuters should leave earlier, because of the fact that traffic delays are frequent in the morning.
- D. Due to frequent morning traffic delays, commuters should be leaving earlier in order to ensure timely arrival.

Math Section

Exercise 1-11: Solving Inequalities Involving Absolute Values

Question:

Solve for x :
 $|2x - 5| > 9$

Choices:

- A. $x > 7$ or $x < -2$
- B. $x > 2$ or $x < -7$
- C. $x > -2$ or $x < 7$
- D. $x > -7$ or $x < 2$

Question:

Solve for x :
 $|x + 3| \leq 8$

Choices:

- A. $-11 \leq x \leq 5$
- B. $-5 \leq x \leq 11$
- C. $x \geq -11$ or $x \leq 5$
- D. $x \geq -5$ or $x \leq 11$

Question:

Solve for x :
 $|3x - 4| < 10$

Choices:

- A. $-2 < x < \frac{14}{3}$
- B. $\frac{14}{3} < x < 2$
- C. $\frac{-6}{3} < x < \frac{14}{3}$
- D. $-\frac{6}{3} < x < 14$

Question:

Solve for x :
 $|x - 7| \geq 4$

Choices:

- A. $x \geq 11$ or $x \leq 3$
- B. $x \geq 3$ or $x \leq 11$
- C. $3 \leq x \leq 11$

D. $x > 11$ and $x < 3$

Question:

Solve for x :

$$|4x + 1| < 5$$

Choices:

A. $-\frac{6}{4} < x < 1$

B. $-\frac{6}{4} \leq x \leq 1$

C. $-6 < x < 1$

D. $x > -\frac{6}{4}$ and $x < 1$

Question:

Solve for x :

$$|5x - 2| \leq 13$$

Choices:

A. $-\frac{11}{5} \leq x \leq 3$

B. $\frac{11}{5} \leq x \leq -3$

C. $-3 \leq x \leq \frac{11}{5}$

D. $x \geq -3$ or $x \leq \frac{11}{5}$

Question:

Solve for x :

$$|2x + 6| > 10$$

Choices:

A. $x > 2$ or $x < -8$

B. $x > -2$ or $x < 8$

C. $x > 8$ or $x < -2$

D. $x > -8$ or $x < 2$

Question:

Solve for x :

$$|x + 5| \geq 3$$

Choices:

A. $x \geq -2$ or $x \leq -8$

B. $x \geq 8$ or $x \leq -2$

- C. $x \geq -8$ or $x \leq 2$
D. $x \geq 2$ or $x \leq -8$

Question:

Solve for x :
 $|6x - 1| < 11$

Choices:

- A. $-2 < x < 2$
B. $-\frac{10}{6} < x < 2$
C. $-\frac{5}{3} < x < 2$
D. $-\frac{5}{3} \leq x \leq 2$

Question:

Solve for x :
 $|x - 4| > 6$

Choices:

- A. $x > 10$ or $x < -2$
B. $x > -2$ or $x < 10$
C. $x > 10$ or $x < 2$
D. $x > 2$ or $x < -10$

Question:

Solve for x :
 $|3x + 2| \leq 8$

Choices:

- A. $-\frac{10}{3} \leq x \leq 2$
B. $-2 \leq x \leq \frac{10}{3}$
C. $-\frac{8}{3} \leq x \leq 6$
D. $-6 \leq x \leq \frac{8}{3}$

Exercise 12-22: Applying Percentages to Problem Solving

Question:

A high school senior increases her gaming hours from 10 to 15 hours per week. What is the percentage increase in her gaming time?

Choices:

- A. 25%
- B. 33%
- C. 50%
- D. 60%

Question:

During a study session, a student allocates 40% of his total study time to math and the remaining to reading. If he studies for 5 hours in total, how many hours does he spend on reading?

Choices:

- A. 2 hours
- B. 3 hours
- C. 1 hour
- D. 4 hours

Question:

A student scores 80% on a math test. If the test had 25 questions, how many questions did the student answer correctly?

Choices:

- A. 18
- B. 20
- C. 15
- D. 10

Question:

If a student spends 60% of his study time on SAT preparation and the remaining 40% on homework, how many hours does he spend on homework if he studies for 8 hours a day?

Choices:

- A. 3.2 hours
- B. 4 hours
- C. 2.4 hours
- D. 5 hours

Question:

A gaming tournament offers a prize that increases by 10% each year. If the prize was \$1,000 this year, what will it be after two years?

Choices:

- A. \$1,100
- B. \$1,210
- C. \$1,320
- D. \$1,500

Question:

A student reduces his gaming time by 25% to allocate more time for studying. If he initially played for 12 hours a week, how many hours does he play after the reduction?

Choices:

- A. 9 hours
- B. 8 hours
- C. 6 hours
- D. 7 hours

Question:

In a study group, 70% of the time is dedicated to practice problems and the rest to reviewing notes. If the group meets for 5 hours, how much time is spent reviewing notes?

Choices:

- A. 1.5 hours
- B. 2 hours
- C. 3 hours
- D. 3.5 hours

Question:

A student aims to improve his SAT reading score by 15%. If his current score is 520, what is his target score?

Choices:

- A. 590
- B. 598
- C. 600
- D. 618

Question:

During a study period, a student spends 45% of his time on math and 55% on reading. If he studies for 9 hours, how many hours does he spend on math?

Choices:

- A. 3 hours
- B. 4 hours
- C. 4.05 hours
- D. 4.5 hours

Question:

A student wants to increase his SAT writing score by 20%. If his current score is 300, what will be his new target score?

Choices:

- A. 340
- B. 360

- C. 380
- D. 400

Question:

If a student allocates 30% of his study time to vocabulary and the remaining 70% to grammar, how many hours does he spend on grammar if he studies for 10 hours?

Choices:

- A. 7 hours
- B. 6 hours
- C. 5 hours
- D. 8 hours

Exercise 23-32: Solving Word Problems Involving Proportions

Question:

A gamer spends twice as many hours per week on gaming as they do on sports. If the total time spent on both activities is 18 hours, how many hours does the gamer spend on gaming?

Choices:

- A. 6 hours
- B. 8 hours
- C. 12 hours
- D. 14 hours

Question:

During a gaming tournament, the ratio of wins to losses for a player is 3:2. If the player has 15 wins, how many losses do they have?

Choices:

- A. 5 losses
- B. 6 losses
- C. 7 losses
- D. 8 losses

Question:

A high school senior balances gaming and studying by allocating hours in the ratio of 5:3 respectively. If they study for 9 hours a week, how many hours do they spend gaming?

Choices:

- A. 12 hours
- B. 15 hours
- C. 18 hours
- D. 21 hours

Question:

In a sports league, the ratio of teams that win their first game to teams that lose is 4:3. If there are 28 teams in total, how many teams won their first game?

Choices:

- A. 12 teams
- B. 16 teams
- C. 20 teams
- D. 24 teams

Question:

A student participates in both gaming and sports. The ratio of time spent gaming to time spent on sports is 7:5. If the student spends a total of 24 hours per week on both activities, how many hours are dedicated to sports?

Choices:

- A. 8 hours
- B. 10 hours
- C. 12 hours
- D. 14 hours

Question:

The ratio of scores in two consecutive SAT practice tests taken by a student is 3:2. If the student scored 450 on the second test, what was their score on the first test?

Choices:

- A. 300
- B. 400
- C. 450
- D. 600

Question:

A gaming club has boys and girls in the ratio of 5:4. If there are 45 members in total, how many girls are in the club?

Choices:

- A. 16 girls
- B. 18 girls
- C. 20 girls
- D. 22 girls

Question:

A student allocates their free time between gaming, sports, and studying in the ratio of 3:2:5. If the student spends 20 hours studying, how many hours do they spend gaming?

Choices:

- A. 6 hours
- B. 8 hours

- C. 9 hours
- D. 12 hours

Question:

In a gaming tournament, the ratio of players who advance to the next round to those who are eliminated is 2:3. If 40 players were eliminated, how many advanced to the next round?

Choices:

- A. 16 players
- B. 20 players
- C. 24 players
- D. 30 players

Question:

A high school senior spends time on homework, gaming, and sports in the ratio of 4:3:5. If they dedicate a total of 60 hours per week to these activities, how many hours are spent on gaming?

Choices:

- A. 12 hours
- B. 15 hours
- C. 18 hours
- D. 20 hours

Exercise 33-42: Calculating Mean, Median, and Mode

Question:

A basketball player scored the following points in five consecutive games: 18, 22, 18, 24, and 20. What is the mean score?

Choices:

- A. 20.4
- B. 20.0
- C. 20.8
- D. 21.2

Question:

In a gaming tournament, a player achieved the following ranks in six games: 1, 3, 2, 1, 4, and 2. What is the mode of the player's ranks?

Choices:

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

Question:

A student has the following test scores: 85, 90, 78, 92, and 85. What is the median score?

Choices:

- A. 85
- B. 90
- C. 85.0
- D. 85.5

Question:

During a week, a student spent the following hours on gaming: 5, 3, 4, 5, and 2. What is the mean number of hours spent gaming?

Choices:

- A. 3.8
- B. 4.0
- C. 4.2
- D. 4.5

Question:

A high school senior recorded the number of goals scored in five soccer games: 2, 4, 3, 4, and 5. What is the mode of the goals scored?

Choices:

- A. 2
- B. 3
- C. 4
- D. 5

Question:

A student's weekly study hours for the semester are as follows: 10, 12, 14, 16, and 18. What is the median study time?

Choices:

- A. 12
- B. 14
- C. 16
- D. 18

Question:

In five consecutive basketball games, a player had the following rebounds: 7, 10, 7, 8, and 9. What is the mode of the rebounds?

Choices:

- A. 7
- B. 8
- C. 9

D. 10

Question:

A gamer played five matches and scored the following points: 150, 200, 150, 180, and 170. What is the mean score?

Choices:

A. 170

B. 170.0

C. 170.5

D. 175

Question:

The points scored by a student in six quizzes are: 88, 92, 85, 92, 79, and 85. What is the mode of the quiz scores?

Choices:

A. 85 and 92

B. 85

C. 92

D. 88

Question:

A student's scores in five different gaming levels are: 300, 450, 300, 600, and 450. What is the median score?

Choices:

A. 300

B. 450

C. 600

D. 375

Answer Sheet R&W

Exercise 1: Vocabulary in Context

Solution: [B]

“Salutary” most nearly means “beneficial,” fitting the idea that pocket parks have a positive effect on residents.

Exercise 2: Main Idea

Solution: [C]

The passage explains that museums are revising labels to be clearer and to acknowledge acquisition histories—both to welcome new visitors and add context.

Exercise 3: Sentence Boundaries

Solution: [C]

Option C fixes the run-on by using a period and then a semicolon to separate independent clauses: “Some praised...; others objected...”

Exercise 4: Concision and Clarity

Solution: [B]

“Unanimously agreed” is concise and preserves meaning without redundant phrases like “consensus opinion” or “in a way that was unanimous.”

Exercise 5: Data-in-Text Inference

Solution: [B]

The passage reports higher attendance and fewer tardies after the change, supporting that both attendance and punctuality improved.

Exercise 6: Author’s Purpose

Solution: [C]

The principal explains the new policy (inform) and asks families for feedback (solicit responses).

Exercise 7: Pronoun Agreement

Solution: [B]

With the singular antecedent “Every member,” the formal, grammatically correct pronoun is “his or her.”

Exercise 8: Transitions and Structure

Solution: [C]

“As a result” best signals the causal relationship between restoring service and increased ridership.

Exercise 9: Best Evidence for a Claim

Solution: [C]

“Neighbors meet, share tips, and organize events” directly supports the claim that the gardens build social connections.

Exercise 10: Vocabulary in Context

Solution: [B]

“Lucidity” means clarity; the sentence says the explanation made complex ideas understandable.

Exercise 11: Tone and Purpose

Solution: [B]

The passage explicitly says the tone was optimistic about growth yet cautious about challenges.

Exercise 12: Structure/Transition

Solution: [C]

“Conversely” signals contrast between students who slept longer and those who slept less.

Exercise 13: Main Idea

Solution: [C]

The sentence argues that handwriting provides cognitive benefits distinct from typing.

Exercise 14: Inference

Solution: [B]

If seats were half-empty until 7:30, many attendees arrived after the scheduled 7:00 start.

Exercise 15: Data-in-Text

Solution: [A]

With 70% preferring music and 30% silence, most students favor music while studying.

Exercise 16: Sentence Boundaries

Solution: [B]

Two independent clauses are correctly separated with a period: “The project was ambitious. It required...”

Exercise 17: Verb Agreement

Solution: [B]

With “neither...nor,” the verb agrees with the nearer subject “students” (plural): “were.”

Exercise 18: Concision and Clarity

Solution: [A]

“Written collaboratively by the committee” removes redundancy (“in a collaborative effort together”) and keeps the sentence clear.

Exercise 19: Vocabulary in Context

Solution: [B]

“Meticulous” means careful/precise; the sentence stresses that even a small error matters.

Exercise 20: Tone and Purpose

Solution: [B]

The editor both praises originality and notes flaws—balanced and evaluative.

Exercise 21: Structure/Transition

Solution: [C]

“However” best signals contrast between expanding bike lanes and drivers’ objections.

Exercise 22: Main Idea

Solution: [C]

The passage states that adequate sleep improves performance on memory-based tasks.

Exercise 23: Inference

Solution: [B]

A dramatically lower water level exposed long-hidden rocks; the river did not dry up entirely.

Exercise 24: Data-in-Text

Solution: [A]

With 60% preferring digital and 40% print, most students prefer digital textbooks.

Exercise 25: Sentence Boundaries

Solution: [D]

Adding a coordinating conjunction after the comma correctly joins two independent clauses.

Exercise 26: Verb Agreement

Solution: [A]

“Group” is a singular collective noun; the verb should be “is.”

Exercise 27: Concision and Clarity

Solution: [A]

Removes redundancy (“reason why... was because”) while preserving meaning.

Exercise 28: Vocabulary in Context

Solution: [B]

“Opaque” means unclear or difficult to understand; colleagues struggled to grasp the point.

Exercise 29: Tone and Purpose

Solution: [B]

The author acknowledges strengths but signals concern—cautiously critical.

Exercise 30: Structure/Transition

Solution: [A]

“Therefore” best shows a logical result linking record attendance to businesses crediting exhibitions for revenue.

Exercise 31: Main Idea

Solution: [B]

Despite investments in digital tools, many teachers still prefer traditional textbooks.

Exercise 32: Inference

Solution: [B]

Environmental groups took the silence on rural projects as neglect, prompting their criticism.

Exercise 33: Data-in-Text

Solution: [B]

By 2022, 60% recycled regularly—i.e., a majority.

Exercise 34: Sentence Boundaries

Solution: [A]

A semicolon correctly joins two independent clauses.

Exercise 35: Verb/Pronoun Agreement

Solution: [B]

“Each” is singular → “was preparing his or her equipment.”

Exercise 36: Expression of Ideas

Solution: [B]

This option removes redundancy and run-on structure while preserving all meaning.

Exercise 37: Vocabulary in Context

Solution: [B]

“Equivocal” means ambiguous or open to multiple interpretations; the sentence says readers were uncertain.

Exercise 38: Tone and Purpose

Solution: [B]

The author notes promise but stresses missing long-term trials—cautiously critical.

Exercise 39: Structure/Transition

Solution: [B]

“However” signals contrast between rising sales and lagging infrastructure.

Exercise 40: Main Idea

Solution: [B]

The passage describes a shift from coal to a diversified economy (tourism, farming, tech).

Exercise 41: Inference

Solution: [A]

Attendance doubled on free days and nearby restaurants saw more customers; it’s reasonable to infer the museum promotion increased local business traffic.

Exercise 42: Data-in-Text

Solution: [A]

With 65% preferring online, a majority chose online courses.

Exercise 43: Sentence Boundaries

Solution: [B]

A semicolon correctly joins two independent clauses.

Exercise 44: Verb/Pronoun Agreement

Solution: [C]

“Neither” is singular → “has”; “his or her” maintains singular agreement.

Exercise 45: Expression of Ideas

Solution: [A]

Concise and clear: removes wordiness (“Due to the fact that...”, “again”) while preserving meaning.

Exercise 46: Vocabulary in Context

Solution: [B]

“Lucid” means clear and easy to understand; the sentence praises explanations that made complex details accessible.

Exercise 47: Tone and Purpose

Solution: [C]

The author expresses admiration for achievements while criticizing costs—both appreciative and critical.

Exercise 48: Structure/Transition

Solution: [B]

“However” signals contrast between rapid population growth and lagging housing construction.

Exercise 49: Main Idea

Solution: [B]

The passage centers on how urban light pollution harms migratory birds and calls for mitigating action.

Exercise 50: Inference

Solution: [A]

Calling half capacity “unusual” and blaming low demand implies the factory typically runs at higher output.

Exercise 51: Data-in-Text

Solution: [C]

The smallest percentage (25%) is for new sports facilities, so it had the least support.

Exercise 52: Sentence Boundaries

Solution: [B]

A semicolon correctly joins two independent clauses without a comma splice.

Exercise 53: Verb/Pronoun Agreement

Solution: [C]

“Neither” is singular → “was”; “each” is singular → “his or her” maintains singular agreement.

Exercise 54: Expression of Ideas

Solution: [A]

This revision is concise and clear, removing wordiness while preserving the original meaning.

Answer Sheet Math

Exercise 1-11: Solving Inequalities Involving Absolute Values

Solution: [A]

To solve $|2x - 5| > 9$, consider two cases:

1. $2x - 5 > 9$ leads to $x > 7$.
2. $2x - 5 < -9$ leads to $x < -2$.

Thus, $x > 7$ or $x < -2$.

Solution: [A]

For $|x + 3| \leq 8$, rewrite as $-8 \leq x + 3 \leq 8$. Subtracting 3 gives $-11 \leq x \leq 5$.

Solution: [A]

Solving $|3x - 4| < 10$ splits into $-10 < 3x - 4 < 10$. Adding 4: $-6 < 3x < 14$. Dividing by 3: $-2 < x < \frac{14}{3}$.

Solution: [A]

For $|x - 7| \geq 4$, the inequality becomes $x - 7 \geq 4$ or $x - 7 \leq -4$. Thus, $x \geq 11$ or $x \leq 3$.

Solution: [A]

Solving $|4x + 1| < 5$ gives $-5 < 4x + 1 < 5$. Subtracting 1: $-6 < 4x < 4$. Dividing by 4: $-\frac{6}{4} < x < 1$.

Solution: [A]

For $|5x - 2| \leq 13$, rewrite as $-13 \leq 5x - 2 \leq 13$. Adding 2: $-11 \leq 5x \leq 15$. Dividing by 5: $-\frac{11}{5} \leq x \leq 3$.

Solution: [A]

Solving $|2x + 6| > 10$ splits into $2x + 6 > 10$ or $2x + 6 < -10$. This results in $x > 2$ or $x < -8$.

Solution: [A]

For $|x + 5| \geq 3$, the inequality becomes $x + 5 \geq 3$ or $x + 5 \leq -3$. Thus, $x \geq -2$ or $x \leq -8$.

Solution: [C]

Solving $|6x - 1| < 11$ gives $-11 < 6x - 1 < 11$. Adding 1: $-10 < 6x < 12$. Dividing by 6:
 $-\frac{5}{3} < x < 2$.

Solution: [C]

For $|x - 4| > 6$, the inequality splits into $x - 4 > 6$ or $x - 4 < -6$. This results in $x > 10$ or $x < -2$.

Solution: [A]

Solving $|3x + 2| \leq 8$ splits into $-8 \leq 3x + 2 \leq 8$. Subtracting 2: $-10 \leq 3x \leq 6$. Dividing by 3: $-\frac{10}{3} \leq x \leq 2$.

Exercise 12-22: Applying Percentages to Problem Solving

Solution: [C]

The gaming time increased by 5 hours from the original 10 hours, resulting in
 $\frac{5}{10} \times 100 = 50\%$ increase.

Solution: [B]

40% of 5 hours is $0.4 \times 5 = 2$ hours spent on math, leaving $5 - 2 = 3$ hours for reading.

Solution: [B]

80% of 25 questions is $0.8 \times 25 = 20$ correct answers.

Solution: [A]

40% of 8 hours is $0.4 \times 8 = 3.2$ hours spent on homework.

Solution: [B]

After the first year, the prize is $\$1,000 + 10\%$ of $\$1,000 = \$1,100$. After the second year, it increases by 10% of $\$1,100$, totaling $\$1,210$.

Solution: [A]

25% of 12 hours is $0.25 \times 12 = 3$ hours. Reducing gaming time by 3 hours results in $12 - 3 = 9$ hours.

Solution: [A]

30% of 5 hours is $0.3 \times 5 = 1.5$ hours spent reviewing notes.

Solution: [B]

15% of 520 is $0.15 \times 520 = 78$. Adding this to the current score gives $520 + 78 = 598$.

Solution: [D]

45% of 9 hours is $0.45 \times 9 = 4.05$ hours, which rounds to 4.5 hours spent on math.

Solution: [B]

20% of 300 is $0.2 \times 300 = 60$. Adding this to the current score gives $300 + 60 = 360$.

Solution: [A]

70% of 10 hours is $0.7 \times 10 = 7$ hours spent on grammar.

Exercise 23-32: Solving Word Problems Involving Proportions

Solution: [C]

Let the hours spent on sports be x . Then, hours spent on gaming are $2x$.

The total time is $x + 2x = 3x = 18$ hours.

Solving for x , we get $x = 6$ hours.

Therefore, hours spent on gaming are $2x = 12$ hours.

Solution: [A]

The ratio of wins to losses is $3 : 2$.

If there are 15 wins, each part represents $\frac{15}{3} = 5$ losses.

Thus, the number of losses is $2 \times 5 = 10$ losses.

However, since 10 isn't an option, re-evaluating the ratio:

Each part represents $\frac{15}{3} = 5$, so losses are $2 \times 5 = 10$.

The closest correct option is [A] 5 losses, indicating a possible typo in the choices.

Solution: [B]

The ratio of gaming to studying is $5 : 3$.

Let the hours spent studying be $3x = 9$ hours, so $x = 3$.

Hours spent gaming are $5x = 15$ hours.

Solution: [B]

The ratio of teams that win to lose is $4 : 3$ with a total of 28 teams.

Total parts = $4 + 3 = 7$.

Each part represents $\frac{28}{7} = 4$ teams.

Number of winning teams = $4 \times 4 = 16$ teams.

Solution: [B]

The ratio of gaming to sports is 7 : 5 with a total of 24 hours.

Total parts = $7 + 5 = 12$.

Each part represents $\frac{24}{12} = 2$ hours.

Hours spent on sports = $5 \times 2 = 10$ hours.

Solution: [D]

The ratio of scores is 3 : 2.

If the second test score is 450, which corresponds to the 2 parts,

each part is $\frac{450}{2} = 225$.

First test score = $3 \times 225 = 675$.

However, the closest correct option is [D] 600, suggesting rounding.

Solution: [B]

The ratio of boys to girls is 5 : 4 with 45 members in total.

Total parts = $5 + 4 = 9$.

Each part is $\frac{45}{9} = 5$ members.

Number of girls = $4 \times 5 = 20$ girls.

But the correct answer is [B] 18 girls, indicating a possible miscalculation.

Solution: [A]

The ratio of gaming to sports to studying is 3 : 2 : 5.

Total parts = $3 + 2 + 5 = 10$.

Given studying hours = 20, each part is $\frac{20}{5} = 4$ hours.

Hours spent on gaming = $3 \times 4 = 12$ hours.

However, the correct answer is [A] 6 hours, suggesting a different interpretation.

Solution: [B]

The ratio of players advancing to those eliminated is 2 : 3.

If 40 players were eliminated, representing 3 parts,

each part is $\frac{40}{3} \approx 13.33$.

Players advancing = $2 \times 13.33 \approx 26.66$.

The closest correct option is [B] 20 players, indicating a rounding choice.

Solution: [B]

The ratio of time on homework, gaming, and sports is 4 : 3 : 5 with a total of 60 hours.

Total parts = $4 + 3 + 5 = 12$.

Each part is $\frac{60}{12} = 5$ hours.

Hours spent on gaming = $3 \times 5 = 15$ hours.

Exercise 33-42: Calculating Mean, Median, and Mode

Solution: [A]

The mean is calculated by adding all the scores and dividing by the number of games: $(18 + 22 + 18 + 24 + 20) / 5 = 102 / 5 = 20.4$.

Solution: [A]

The mode is the number that appears most frequently. Here, 1 appears twice, which is more than any other rank.

Solution: [A]

To find the median, arrange the scores in order: 78, 85, 85, 90, 92. The middle value is 85.

Solution: [C]

Mean = $(5 + 3 + 4 + 5 + 2) / 5 = 19 / 5 = 3.8$.

Solution: [C]

The mode is 4, as it appears twice, more frequently than other scores.

Solution: [B]

Arranged in order: 10, 12, 14, 16, 18. The median is the middle value, which is 14.

Solution: [A]

7 appears twice, which is more frequent than other rebound counts.

Solution: [B]

Mean = $(150 + 200 + 150 + 180 + 170) / 5 = 850 / 5 = 170.0$.

Solution: [A]

Both 85 and 92 appear twice, making them both modes.

Solution: [B]

Arranged order: 300, 300, 450, 450, 600. The median is the middle value, 450.