

SIMULATION EXAM 7 (75 QUESTIONS)

SESSION A: READING — NARRATIVE TEXT

Read the story below. Then answer questions 1 to 12.

The Quiet Garden

Behind the back fence of the playground at Riverside Elementary, there was a strip of land that no one ever went to. It was hidden behind a row of overgrown lilac bushes, and most of the students did not even know it was there. Devan only found it because his soccer ball had rolled through a gap in the fence one afternoon in early spring.

When he climbed through to retrieve it, he stopped.

The land was an old garden. He could tell because of the bricks that bordered what must once have been flower beds, and the broken concrete birdbath that still stood in the middle. Weeds had grown over almost everything. But here and there, between the weeds, he could see plants that had been planted on purpose — a tangle of forsythia, a single rose bush, a clump of irises whose green leaves were just beginning to push up through the soil.

Devan went back the next day with a notebook.

He spent his lunch hour pulling weeds. The garden was bigger than he had first thought — about the size of two classrooms — and every weed he pulled revealed another plant beneath. By the end of that first week, he had cleared a small patch around the birdbath, and he had begun to recognize the shapes of perennials that were trying to grow.

His friend Tomas found him there on a Friday.

"What are you doing?" Tomas asked, climbing through the gap.

"I'm cleaning it up."

"By yourself?"

Devan shrugged. He had not really thought about anyone else.

The next Monday, Tomas came back with two friends. By the end of the second week, six students were spending their lunch hours in the garden. Mrs. Patel, the Grade 5 teacher, noticed and brought them a bag of bulbs to plant. The custodian, Mr. Brewer, brought them a wheelbarrow and a set of small spades.

By the end of May, the garden was no longer a secret. A laminated sign at the gap in the fence read The Riverside Garden — Please Be Gentle. The forsythia bloomed bright yellow. The irises threw up purple flags. Mrs. Patel's bulbs had been daffodils, and they nodded in long rows where Devan had first pulled weeds.

Sometimes Devan still went there alone, early in the morning before the bell rang. He would sit on the edge of the birdbath, which still did not hold water but had been scrubbed clean, and he would just look. He thought about how strange it was that something so beautiful had been waiting all that time behind the fence, with no one to see it.

He thought, too, that it had not really been waiting. It had been there. He had just learned how to look.

1. How did Devan FIRST discover the hidden strip of land behind the fence?

- A. A teacher took the class on a nature walk to see it
- B. His soccer ball rolled through a gap in the fence
- C. A friend told him about it during recess one day
- D. He spotted it from his classroom window in the morning

2. What FIRST tells Devan that the land used to be a garden?

- A. The bricks that bordered what had been flower beds
- B. A small wooden sign hidden behind the lilac bushes
- C. The smell of flowers that still lingered in the air
- D. A printed list of plants tucked into the back fence

3. What does Devan bring with him when he returns to the garden the next day?

- A. A pair of gardening gloves and a bag of seeds
- B. His soccer ball and a friend from his class
- C. A notebook
- D. A wheelbarrow borrowed from the custodian

4. By the end of the first week, what has Devan accomplished in the garden?

- A. He has planted several rows of bright daffodil bulbs
- B. He has rebuilt the broken concrete birdbath completely
- C. He has finished cleaning the entire abandoned garden
- D. He has cleared a small patch around the birdbath

5. Who finds Devan working in the garden on the FOLLOWING Friday?

- A. His friend Tomas
- B. Mrs. Patel, the Grade 5 teacher
- C. Mr. Brewer, the school custodian
- D. His younger sister from another classroom

6. By the END of the second week, how many students were helping Devan?

- A. Three students were spending their lunch hours in the garden
- B. Twelve students from his class were working there each day
- C. Six students were spending their lunch hours in the garden
- D. No other students had come back to help him that week

7. What does Mrs. Patel bring to the students working in the garden?

- A. A long list of plants she wants them to grow there
- B. A bag of bulbs to plant
- C. Several gardening books from her own collection
- D. Sandwiches and water bottles to share at lunch

8. What does Mr. Brewer, the custodian, bring to the project?

- A. A new wooden bench for the edge of the garden
- B. A laminated sign for the gap in the fence
- C. A list of weeding tips printed from a website
- D. A wheelbarrow and a set of small spades

9. What kind of flowers did Mrs. Patel's bulbs turn out to be?

- A. Daffodils
- B. Tulips
- C. Crocuses
- D. Hyacinths

10. What does the word "perennials" MOST LIKELY mean as it is used in the passage?

- A. Weeds that grow uncontrollably in any kind of soil
- B. Tools used by gardeners to dig small planting holes
- C. Plants that grow back year after year on their own
- D. Small insects that help pollinate spring flowers

11. Which sentence BEST states a theme of this passage?

- A. Old gardens always contain plants worth more than they appear
- B. Beautiful things may already be present if we learn to notice them
- C. Schools should not allow students to enter areas behind the fence
- D. Teachers and custodians should always lead all student projects

12. Explain how Devan's discovery of the hidden garden changes the school community. Use specific details from the passage to support your answer.

(Write your response on the lines provided. Use specific details from the passage.)

into the air and is made of more than two million blocks of stone, some weighing as much as fifteen tonnes. The question that scientists, historians, and curious people have asked for centuries is simple: how did people build something so enormous without modern machines?

The answer, slowly pieced together over many years of study, is that the Egyptians used clever planning, large teams of workers, and simple but effective tools.

First, the stone had to come from somewhere. Most of it was quarried from a place not far from the pyramid site, where workers used copper tools and wooden wedges to cut huge blocks free from the rock face. The wedges, when soaked in water, would expand and crack the stone along straight lines.

Next, the blocks had to be moved. Some were dragged across the desert on wooden sleds. To make the dragging easier, water was poured on the sand in front of the sled. Recent experiments by scientists have shown that wet sand has only about half the friction of dry sand — meaning workers could pull the blocks with much less effort.

Finally, the blocks had to be lifted into place. The most likely method involved long earthen ramps that wound around the outside of the growing pyramid. As the structure rose, the ramps were extended and built higher. When the pyramid was finished, the ramps were removed.

The work was not done by slaves, as many people once believed. Modern research has shown that the builders were Egyptian workers — many of them farmers — who were hired in large teams. They were given food, shelter, and beer, and they worked in shifts that allowed them to return home regularly. Excavated worker camps have even revealed bakeries that produced bread for thousands of people each day.

The Great Pyramid stands today as a reminder that humans can accomplish remarkable things through planning, cooperation, and patience — even without modern technology.

13. Which sentence BEST states the main idea of the passage?

- A. The Great Pyramid is the largest building ever constructed by humans
- B. Egyptian workers were not slaves but were hired in well-treated teams

- C. The pyramids could not have been built without copper tools and wedges
- D. The Egyptians built the pyramids using clever planning, large teams, and simple tools

14. According to the passage, how did Egyptian workers cut huge blocks of stone from the rock face?

- A. They used heavy iron hammers to break the stone into smaller pieces
- B. They used copper tools and wooden wedges that expanded when soaked in water
- C. They poured boiling water on the rock to make it crack along the lines
- D. They burned wood fires against the rock to weaken it before chiselling

15. According to the passage, what made it EASIER to drag the heavy blocks across the desert?

- A. The blocks were broken into smaller pieces for easier transport
- B. Wooden wheels were placed beneath each of the heavy stone sleds
- C. Water was poured on the sand in front of the sled, reducing friction
- D. The blocks were moved only during the cooler nighttime hours

16. According to the passage, how did workers MOST LIKELY lift the blocks into place as the pyramid grew taller?

- A. They built long earthen ramps that wound around the outside of the pyramid
- B. They used a system of ropes and pulleys connected to wooden cranes
- C. They floated the blocks upward using large balloons filled with hot air
- D. They cut grooves into the stone face to climb up while pulling blocks

17. What does modern research show about the workers who built the pyramids?

- A. They were prisoners brought from foreign lands and forced to work
- B. They were a small team of only the strongest men in the country

- A. The dog wagged it's tail when its owner came home from school
- B. Their going to the park because there car would not start today
- C. Whose coming to the party that your hosting tomorrow afternoon
- D. You shouldn't leave your bike outside when it's raining hard

21. Which sentence is NOT a run-on?

- A. Lila finished her homework she put it in her backpack she ate dinner
- B. The wind was strong it knocked over the trash cans it was scary
- C. Although the rain had stopped, the field was too wet for our game
- D. We went swimming we built a sandcastle we had a picnic on the beach

22. Which sentence uses CONSISTENT verb tense throughout?

- A. After the bell rang, the students gather their books and leave the room
- B. After the bell rang, the students gathered their books and left the room
- C. After the bell rings, the students gathered their books and leave the room
- D. After the bell will ring, the students gather their books and left the room

23. Which sentence is a COMPLEX sentence containing a subordinate clause?

- A. When the storm finally passed, we went outside to look at the fallen branches
- B. The storm was loud, and the wind knocked over our garbage cans during the night
- C. The storm passed quickly. We went outside to look at the fallen branches together.
- D. The storm was loud; the wind knocked over our garbage cans last night for hours

24. Which sentence uses a COORDINATING conjunction to join two independent clauses?

- A. Because the bus was late, we waited at the corner for nearly twenty minutes

- B. The bus was late, so we waited at the corner for nearly twenty minutes today
- C. Although the bus was late, we waited at the corner for twenty more minutes
- D. After the bus was late, we waited at the corner for nearly twenty minutes there

25. Which of the following is a COMPLETE sentence, NOT a fragment?

- A. Running through the park on a sunny afternoon after school yesterday
- B. The tall boy with the bright red backpack and matching baseball cap
- C. Because she had practiced every single day for the entire month of June
- D. The orchestra played its final song before the audience stood and cheered

26. In the sentence "The cat sat under the wooden table during dinner," which words form a prepositional phrase?

- A. The cat sat
- B. wooden table
- C. under the wooden table
- D. sat under

27. In which sentence does an ADVERB modify the verb?

- A. The runner crossed the finish line quickly to win the race
- B. The quick runner crossed the long finish line to win the race
- C. The runner was quick across the finish line in the long race
- D. Quickness helped the runner cross the finish line in the race

28. Which sentence is written in ACTIVE voice?

- A. The cake was eaten by the children after they finished their dinner

- B. The window was broken by the wild storm during last night's hours
- C. The note was passed by Eli to his friend across the classroom space
- D. The chef baked a fresh loaf of bread for the customers this morning

29. Which sentence contains a SIMILE?

- A. The classroom was a beehive of busy and productive activity all day
- B. The blanket of snow was as soft as freshly washed cotton on our feet
- C. Time is a thief that takes our childhood years away far too quickly
- D. The angry thunder is a roaring lion that fills the sky above us at night

30. Which sentence BEST combines the two sentences below into a single, smooth sentence?

The wind blew hard. The leaves swirled across the yard.

- A. The wind blew hard, the leaves swirled across the yard so quickly that day
- B. Because the wind blew, the leaves swirled across the yard hard during the day
- C. The wind blew hard, and the leaves swirled across the yard
- D. The wind blew hard the leaves swirled across the yard from where we stood

31. Think of a time when you tried something new and it turned out differently than you expected. Describe what happened and explain what you learned from the experience.

(Plan your writing. Write a clear, well-organized response using specific details and examples.)

32. What is the value of the digit 7 in the number 472,683?

- A. 700
- B. 70,000
- C. 7,000
- D. 700,000

33. Calculate: 86×14

- A. 1,054
- B. 1,144
- C. 1,234
- D. 1,204

34. Which fraction is EQUIVALENT to $\frac{3}{5}$?

- A. $\frac{6}{10}$
- B. $\frac{9}{20}$
- C. $\frac{12}{25}$
- D. $\frac{15}{35}$

35. Which list shows the decimals in order from LEAST to GREATEST?

- A. 0.5, 0.45, 0.405, 0.4
- B. 0.45, 0.405, 0.5, 0.4
- C. 0.4, 0.405, 0.45, 0.5
- D. 0.405, 0.4, 0.45, 0.5

36. What is 30% of 250?

- A. 25
- B. 75
- C. 60
- D. 150

37. A recipe uses 2 cups of flour for every 3 cups of milk. How many cups of milk are needed for 8 cups of flour?

- A. 12
- B. 10
- C. 16
- D. 6

38. What is $425 \div 5$?

- A. 78
- B. 82
- C. 87
- D. 85

39. What is the value of $3x - 5$ when $x = 7$?

- A. 26
- B. 15
- C. 16
- D. 21

40. Solve for n in the equation $n + 8 = 23$.

- A. 14
- B. 15
- C. 16
- D. 31

41. Look at this growing pattern: 3, 7, 11, 15, 19, ...

What is the pattern rule?

- A. Start at 3 and add 4 each time
- B. Start at 3 and multiply by 2 each time
- C. Start at 3 and add 5 each time
- D. Start at 3 and add 3 each time

42. Look at the table of values below.

n	y
1	5
2	9
3	13
4	17

Which equation shows the relationship between n and y ?

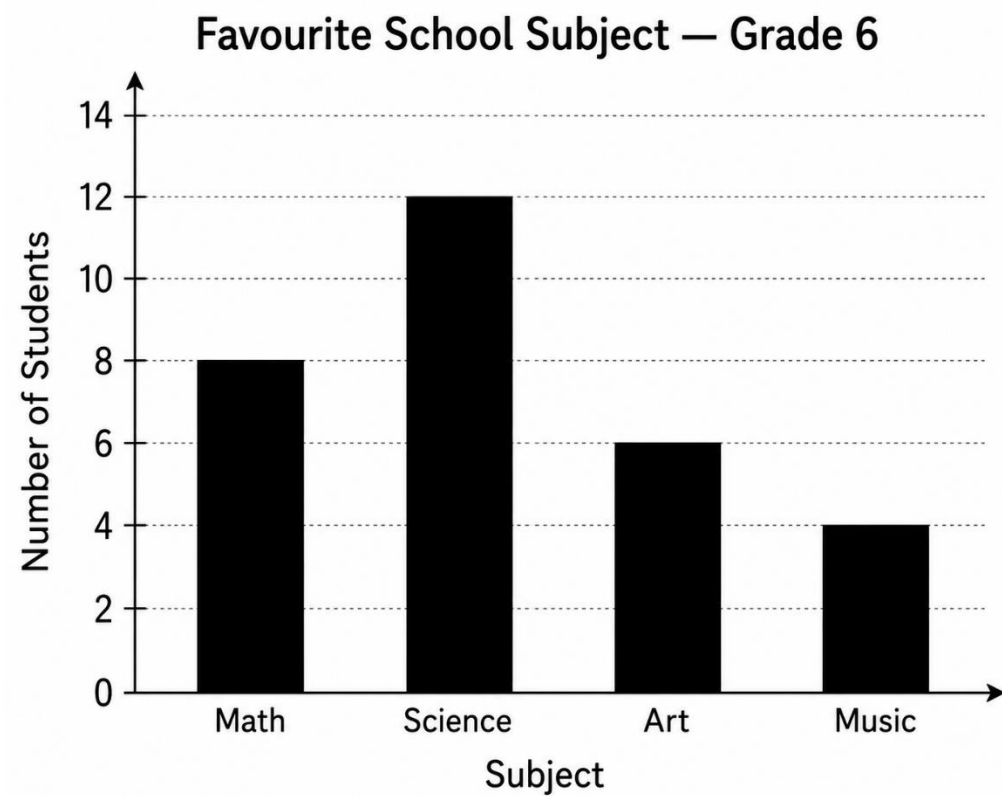
- A. $y = 5n$

- B. $y = n + 4$
- C. $y = 5n - 1$
- D. $y = 4n + 1$

43. Five students received these scores on a quiz: 8, 10, 6, 9, 7. What is the MEAN score?

- A. 9
- B. 7
- C. 8
- D. 10

44. Look at the bar graph below showing the number of students in Grade 6 who chose each favourite school subject.



According to the bar graph, which subject was chosen by the GREATEST number of students?

- A. Science
- B. Math
- C. Art
- D. Music

45. A bag contains 3 yellow, 5 green, and 2 red marbles. What is the probability of drawing a GREEN marble at random?

- A. $\frac{3}{10}$
- B. $\frac{5}{10}$
- C. $\frac{2}{10}$
- D. $\frac{1}{5}$

46. A rectangle has a length of 12 cm and a width of 7 cm. What is the perimeter?

- A. 84 cm
- B. 19 cm
- C. 24 cm
- D. 38 cm

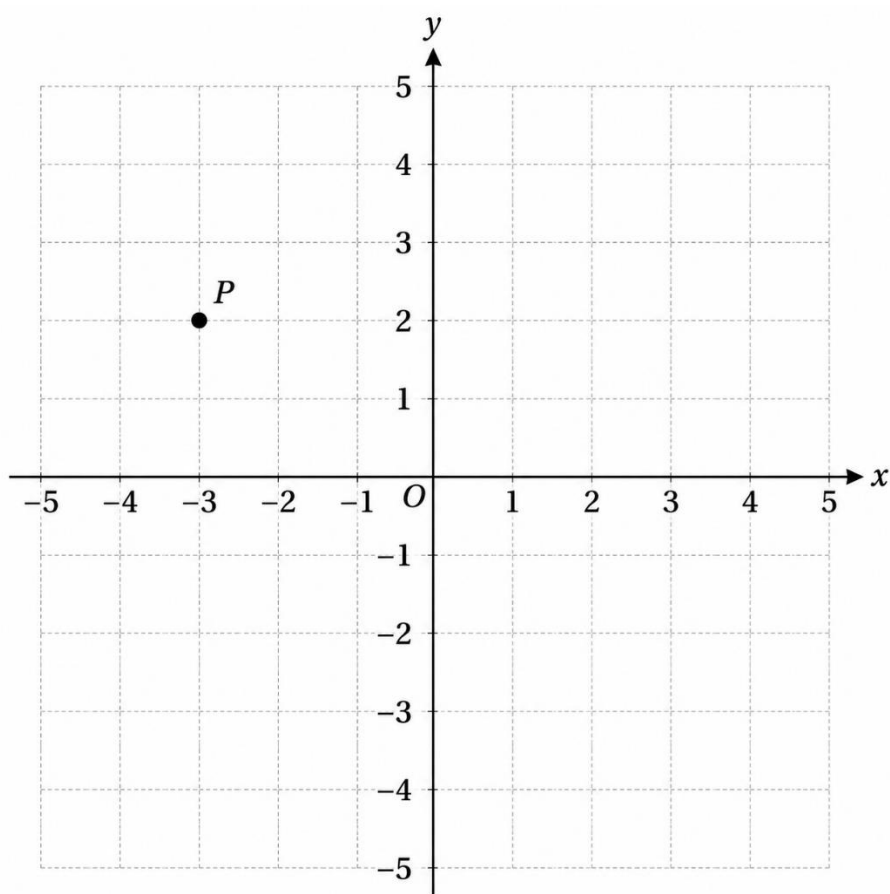
47. A rectangular garden measures 9 m long and 4 m wide. What is the area?

- A. 13 m^2
- B. 26 m^2
- C. 36 m^2
- D. 45 m^2

48. An angle measures 145° . What type of angle is it?

- A. Obtuse
- B. Acute
- C. Right
- D. Straight

49. Look at the coordinate plane below.



What are the coordinates of point P?

- A. (3, -2)
- B. (-3, 2)
- C. (2, -3)

D. $(-2, 3)$

50. A rectangular prism has how many faces?

A. 4

B. 5

C. 7

D. 6

SESSION D: MATHEMATICS

51. What is $1,248 \div 6$?

A. 218

B. 198

C. 208

D. 228

52. Maya ate $\frac{2}{8}$ of a pizza, and her brother ate $\frac{3}{8}$. What fraction of the pizza did they eat ALTOGETHER?

A. $\frac{5}{8}$

B. $\frac{5}{16}$

C. $\frac{6}{8}$

D. $\frac{1}{8}$

53. Which mixed number is EQUIVALENT to $\frac{11}{4}$?

A. $2 \frac{1}{4}$

B. $1 \frac{3}{4}$

C. $3 \frac{1}{4}$

D. $2 \frac{3}{4}$

54. What is $4.6 + 3.85$?

A. 7.91

B. 8.45

C. 8.36

D. 7.45

55. What is 60% expressed as a fraction in LOWEST terms?

A. $\frac{3}{5}$

B. $\frac{6}{10}$

C. $\frac{3}{4}$

D. $\frac{2}{3}$

56. Which is the BEST estimate of 612×19 ?

A. 1,200

B. 6,000

C. 12,000

D. 60,000

57. What is the value of $3 + 4 \times 5$?

A. 12

B. 35

- C. 17
- D. 23

58. Solve for x in the equation $6x = 54$.

- A. 8
- B. 9
- C. 10
- D. 60

59. Which expression represents "five more than twice a number n "?

- A. $2n + 5$
- B. $2(n + 5)$
- C. $5n + 2$
- D. $n + 5 \times 2$

60. The first four terms of a pattern are 4, 9, 14, 19. What is the 10th term?

- A. 40
- B. 45
- C. 50
- D. 49

61. What is the value of $2(a + b)$ when $a = 5$ and $b = 3$?

- A. 13
- B. 16

- C. 10
- D. 30

62. Look at the pseudocode below:

...

SET total = 10

FOR each number from 1 to 4:

 Add the number to total

Display total

...

What is the FINAL value of total?

- A. 14
- B. 18
- C. 20
- D. 24

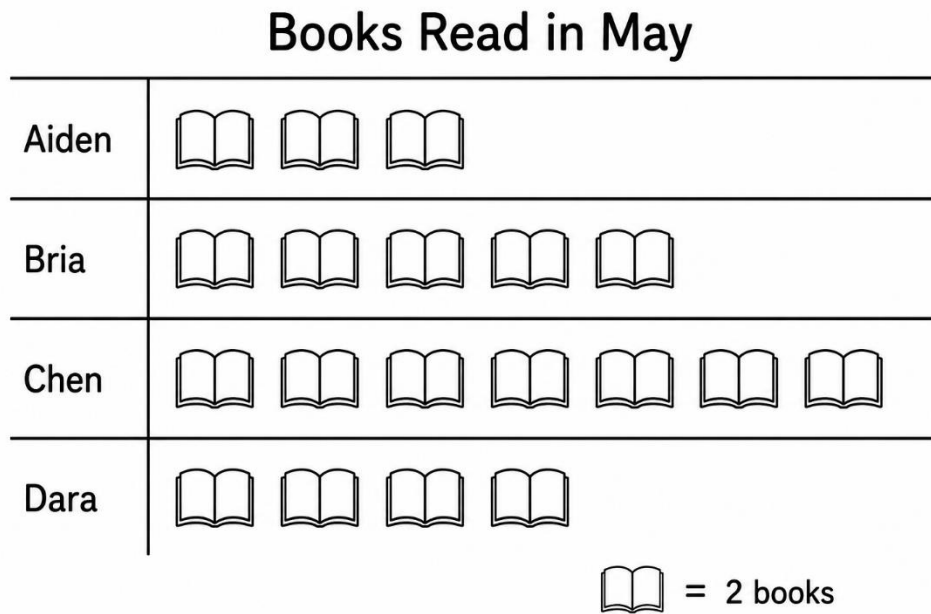
63. Find the MEDIAN of these test scores: 12, 18, 15, 20, 14.

- A. 15
- B. 14
- C. 18
- D. 16

64. Find the MODE of this data set: 4, 7, 3, 7, 5, 9, 7, 2.

- A. 4
- B. 5
- C. 3
- D. 7

65. Look at the pictograph below showing the number of books read by four Grade 6 students in May.



How many books did Chen read in May?

- A. 7
- B. 12
- C. 14
- D. 10

66. A standard six-sided number cube is rolled once. What is the probability of rolling an EVEN number?

- A. $\frac{1}{6}$
- B. $\frac{3}{6}$
- C. $\frac{2}{6}$
- D. $\frac{4}{6}$

67. Find the RANGE of these temperatures: 18°C , 12°C , 25°C , 10°C , 21°C .

- A. 15°C
- B. 10°C
- C. 25°C
- D. 13°C

68. A point is located at (4, 6). It is translated 3 units LEFT and 2 units DOWN. What are the coordinates of the new point?

- A. (7, 8)
- B. (1, 8)
- C. (7, 4)
- D. (1, 4)

69. A rectangular prism has a length of 5 cm, a width of 3 cm, and a height of 4 cm. What is its volume?

- A. 12 cm^3
- B. 60 cm^3
- C. 24 cm^3
- D. 120 cm^3

70. Two angles of a triangle measure 50° and 70° . What is the measure of the THIRD angle?

- A. 90°
- B. 50°
- C. 60°
- D. 70°

71. How many centimetres are in 2.5 metres?

- A. 250 cm
- B. 25 cm
- C. 2,500 cm
- D. 0.025 cm

72. Devan has \$25.00. He spends \$7.50 on a book and \$3.25 on a snack. How much money does he have LEFT?

- A. \$10.75
- B. \$11.25
- C. \$14.25
- D. \$15.25

73. A family budgets 25% of their monthly income for housing. If the family's monthly income is \$4,800, how much do they budget for housing each month?

- A. \$480
- B. \$960
- C. \$1,000
- D. \$1,200

74. Which statement BEST describes the difference between a NEED and a WANT?

- A. A need is something purchased with credit; a want is paid in cash
- B. A need is essential for daily life; a want is something extra desired
- C. A need always costs more money than a want costs to purchase
- D. A need is purchased weekly; a want is only purchased once each year

75. Aria deposits \$400 in a savings account that earns 4% simple interest per year. How much interest will she earn in ONE year?

- A. \$4
- B. \$40
- C. \$16
- D. \$160

ANSWER KEY & DETAILED EXPLANATIONS — SIMULATION EXAM 7

1. B — The opening paragraph states directly: "Devan only found it because his soccer ball had rolled through a gap in the fence one afternoon in early spring." The chance event of the soccer ball is what leads him to the hidden land.

2. A — The narrator explains: "He could tell because of the bricks that bordered what must once have been flower beds." The bordered bricks are the first visual clue that the area was once a planted garden.

3. C — The passage states plainly: "Devan went back the next day with a notebook." The notebook is the only item mentioned that he brings on his return.

4. D — The passage describes: "By the end of that first week, he had cleared a small patch around the birdbath." This direct-recall detail measures his early progress.

5. A — The passage states: "His friend Tomas found him there on a Friday." Tomas is named explicitly as the first person to discover Devan working in the garden.

6. C — The passage states: "By the end of the second week, six students were spending their lunch hours in the garden." This direct-recall detail captures the rapid growth of the volunteer group.

7. B — The passage states: "Mrs. Patel, the Grade 5 teacher, noticed and brought them a bag of bulbs to plant." The bag of bulbs is her specific contribution.

8. D — The passage states: "The custodian, Mr. Brewer, brought them a wheelbarrow and a set of small spades." Both items are listed together as his specific contribution to the project.

9. A — The passage states: "Mrs. Patel's bulbs had been daffodils, and they nodded in long rows where Devan had first pulled weeds." The bulbs are identified by name once they bloom in the spring.

10. C — In context, perennials are described as plants whose "shapes... were trying to grow" amid the weeds — meaning plants that come back year after year on their own from established roots. This contrasts with annuals, which need to be replanted each season.

11. B — The closing lines state: "It had been there. He had just learned how to look." Devan's discovery shows that something beautiful was already present and only needed someone to notice it — the central theme of the story.

12. OPEN-RESPONSE — A strong Code 40 response identifies several ways the garden changes the school community: it draws in students from different grades, brings in teachers (Mrs. Patel) and staff (Mr. Brewer), turns a hidden strip of land into a named and shared space (The Riverside Garden), and creates a collaborative project that grew out of one student's quiet observation. Code 40 responses cite specific passage details and explain how each builds the larger sense of community.

13. D — The second paragraph states directly: "the Egyptians used clever planning, large teams of workers, and simple but effective tools." Each section that follows develops one of those three points, making this the central main idea.

14. B — The passage states: "workers used copper tools and wooden wedges to cut huge blocks free from the rock face. The wedges, when soaked in water, would expand and crack the stone along straight lines." Both the tools and the water-soaked wedge mechanism appear together as the cutting method.

15. C — The passage states: "water was poured on the sand in front of the sled. Recent experiments by scientists have shown that wet sand has only about half the friction of dry sand." Reducing friction is the specific reason the wet sand made dragging easier.

16. A — The passage states: "The most likely method involved long earthen ramps that wound around the outside of the growing pyramid. As the structure rose, the ramps were extended and built higher." The winding earthen ramp is identified as the most likely lifting method.

17. D — The passage states: "the builders were Egyptian workers — many of them farmers — who were hired in large teams." This corrects the older belief that pyramid builders were slaves.

18. OPEN-RESPONSE — A strong Code 40 response cites at least two specific examples of clever planning from the passage, such as: soaking wooden wedges to crack stone along straight lines, wetting sand to halve the friction under sleds, using winding earthen ramps that grew as the pyramid grew, and

organizing hired workers in shifts with food, shelter, and on-site bakeries. Code 40 responses explain how each example shows clever planning, not just hard physical work.

19. A — Direct speech requires quotation marks around the spoken words only, with the speaker tag set off by commas outside the quotation marks. Option A correctly opens and closes each quoted portion and uses commas to attach "said Maya" to the dialogue.

20. D — A contraction joins two words with an apostrophe replacing the missing letter(s). "Shouldn't" stands for "should not" and "it's" stands for "it is," both used correctly. Options A, B, and C confuse possessive forms (its, their, your, whose) with their contraction look-alikes.

21. C — A run-on sentence joins two or more complete thoughts without proper punctuation or a connecting word. Option C is a complex sentence with the subordinate clause "Although the rain had stopped" correctly attached by a comma to the main clause. The others stack complete thoughts with no punctuation or conjunction.

22. B — Verb tense should remain consistent within a sentence unless the meaning requires a shift. Option B uses "rang," "gathered," and "left" — all simple past — keeping the action firmly in one time frame.

23. A — A complex sentence contains one independent clause and at least one dependent clause introduced by a subordinating conjunction. Option A opens with "When the storm finally passed" — a dependent clause — joined to the main clause "we went outside." Option B is compound, and options C and D are simple or compound constructions.

24. B — Coordinating conjunctions (for, and, nor, but, or, yet, so) join independent clauses of equal weight. Option B uses "so" with a preceding comma to join two independent clauses correctly. The other options use subordinating conjunctions (Because, Although, After), which create complex sentences.

25. D — A complete sentence must have a subject and a predicate and express a complete thought. Option D has the subject "The orchestra" and the verb "played," forming a complete idea. Options A, B, and C are fragments — missing a subject, missing a verb, or containing only a dependent clause.

26. C — A prepositional phrase begins with a preposition and ends with a noun or pronoun (the object of the preposition). "Under the wooden table" begins with the preposition "under" and ends with the noun "table," making the full phrase grammatically complete.

27. A — An adverb modifies a verb, an adjective, or another adverb, often answering "how," "when," or "where." In option A, "quickly" modifies the verb "crossed" by describing how the runner crossed the finish line. The other options use "quick" as an adjective or "Quickness" as a noun.

28. D — In active voice, the subject performs the action of the verb. Option D's subject "The chef" performs the action "baked." The other options use passive voice ("was eaten by," "was broken by," "was passed by"), where the subject receives the action instead.

29. B — A simile compares two unlike things using the words "like" or "as." Option B uses "as soft as freshly washed cotton" — a classic "as... as" construction. The other options use direct comparisons (was a beehive, is a thief, is a roaring lion), which are metaphors.

30. C — Two independent clauses can be joined into one smooth sentence with a comma and a coordinating conjunction. Option C uses "comma + and" to combine the two ideas correctly without changing the meaning. Option A is a comma splice, option B shifts the meaning by adding causation, and option D is a run-on.

31. OPEN-RESPONSE — A strong Code 30 or 40 response identifies one specific experience, describes what was expected and what actually happened with concrete details, and explains a clear lesson learned. The strongest responses use specific dialogue, sensory description, and reflective insight rather than vague statements like "I learned not to give up."

32. B — In 472,683 the digit 7 sits in the ten thousands place. Its value is therefore $7 \times 10,000 = 70,000$. Place value increases by a factor of ten with each position to the left of the decimal point.

33. D — Split one factor to use easier numbers: $86 \times 10 = 860$ and $86 \times 4 = 344$. Add them: $860 + 344 = 1,204$. Splitting one factor into tens and ones is a reliable mental-math approach.

34. A — Equivalent fractions are created by multiplying (or dividing) the numerator and denominator by the same non-zero number. $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10}$, so $\frac{6}{10}$ is equivalent to $\frac{3}{5}$. The other options do not satisfy this proportional relationship.

35. C — Compare decimals by aligning place values: $0.4 = 0.400$, $0.405 = 0.405$, $0.45 = 0.450$, $0.5 = 0.500$. From least to greatest the order is 0.4, 0.405, 0.45, 0.5. Lining up the decimal points avoids the common error of judging by digit length.

36. B — Convert the percent to a decimal and multiply: $30\% = 0.30$, then $0.30 \times 250 = 75$. As a check, 30% is just under one-third, and 75 is just under one-third of 250.

37. A — The ratio 2 cups flour : 3 cups milk scales together. Since 8 cups of flour is 4 times the original 2 cups, the milk also multiplies by 4: $3 \times 4 = 12$ cups of milk. Ratios remain equivalent when both quantities are multiplied by the same factor.

38. D — Divide 425 by 5: $425 \div 5 = 85$. As a check, $5 \times 85 = 425$, which confirms the quotient.

39. C — Substitute $x = 7$ into the expression $3x - 5$: $3(7) - 5 = 21 - 5 = 16$. Order of operations requires multiplication before subtraction.

40. B — To isolate n , subtract 8 from both sides: $n = 23 - 8 = 15$. The inverse operation undoes the addition to keep the equation balanced.

41. A — The differences between consecutive terms are $7 - 3 = 4$, $11 - 7 = 4$, $15 - 11 = 4$, and $19 - 15 = 4$. The pattern starts at 3 and adds 4 each time. A constant difference identifies the rule as additive, not multiplicative.

- 42. D** — Test the equation $y = 4n + 1$ against each row: $4(1) + 1 = 5 \checkmark$, $4(2) + 1 = 9 \checkmark$, $4(3) + 1 = 13 \checkmark$, $4(4) + 1 = 17 \checkmark$. The equation matches every row of the table.
- 43. C** — Add the five scores: $8 + 10 + 6 + 9 + 7 = 40$. Divide by the number of values: $40 \div 5 = 8$. The mean is the total divided by the count.
- 44. A** — The bar for Science reaches 12 students, which is taller than Math (8), Art (6), or Music (4). The tallest bar identifies the subject chosen by the greatest number of students.
- 45. B** — Total marbles = $3 + 5 + 2 = 10$. Green marbles = 5, so the probability of drawing a green marble = $5/10$. Probability of a single event equals favourable outcomes divided by total outcomes.
- 46. D** — Perimeter of a rectangle = $2(\text{length} + \text{width}) = 2(12 + 7) = 2(19) = 38$ cm. Perimeter measures the total distance around all four sides.
- 47. C** — Area of a rectangle = $\text{length} \times \text{width} = 9 \times 4 = 36$ m². The unit is squared because area measures two-dimensional surface.
- 48. A** — Angles between 90° and 180° are called obtuse, and 145° falls in that range. Acute angles measure less than 90° , right angles equal exactly 90° , and straight angles equal exactly 180° .
- 49. B** — Point P sits 3 units to the left of the y-axis (so $x = -3$) and 2 units above the x-axis (so $y = 2$), giving the coordinates $(-3, 2)$. Coordinates are always written in the order (x, y) .
- 50. D** — A rectangular prism has 6 rectangular faces: top, bottom, front, back, left side, and right side. Each pair of opposite faces is congruent.
- 51. C** — Divide 1,248 by 6: $12 \div 6 = 2$, $04 \div 6 = 0$ remainder 4, $48 \div 6 = 8$, giving 208. As a check, $6 \times 208 = 1,248$.
- 52. A** — Fractions with the same denominator are added by adding the numerators and keeping the denominator: $2/8 + 3/8 = 5/8$. Like denominators allow direct addition of the parts.
- 53. D** — Divide 11 by 4: $11 \div 4 = 2$ remainder 3, which becomes $2 \frac{3}{4}$ as a mixed number. The whole-number part is the quotient and the fractional part keeps the original denominator over the remainder.
- 54. B** — Align the decimals and add: $4.60 + 3.85 = 8.45$. Writing 4.6 as 4.60 makes the place-value columns line up cleanly.
- 55. A** — Express 60% as a fraction over 100: $60/100$, then divide numerator and denominator by their greatest common factor (20): $60 \div 20 = 3$ and $100 \div 20 = 5$, giving $3/5$. A fraction is in lowest terms when the numerator and denominator share no common factor other than 1.
- 56. C** — Round each factor to a nearby easy number: $612 \approx 600$ and $19 \approx 20$. Multiply the rounded values: $600 \times 20 = 12,000$. Estimating with friendly numbers gives a quick check on the size of the answer.

- 57. D** — Order of operations requires multiplication before addition: $4 \times 5 = 20$, then $3 + 20 = 23$. Performing addition first would give the incorrect result of 35.
- 58. B** — To isolate x , divide both sides by 6: $x = 54 \div 6 = 9$. The inverse operation undoes the multiplication while keeping the equation balanced.
- 59. A** — "Twice a number n " translates to $2n$, and "five more than" means add 5 to that quantity, giving $2n + 5$. Option B would mean two times the sum of n and 5, a different operation order.
- 60. D** — The pattern starts at 4 and adds 5 each term, giving the rule $5n - 1$. For the 10th term: $5(10) - 1 = 49$. Using the algebraic rule jumps directly to any term without listing all the values.
- 61. B** — Substitute the values and follow order of operations: $2(5 + 3) = 2(8) = 16$. The brackets require the addition inside them to be done before the multiplication.
- 62. C** — Trace through the loop: total starts at 10, then $10 + 1 = 11$, $11 + 2 = 13$, $13 + 3 = 16$, $16 + 4 = 20$. The final displayed value is 20.
- 63. A** — Arrange the scores in order: 12, 14, 15, 18, 20. The median is the middle value, which is 15. For an odd number of values, the median sits in the exact middle position.
- 64. D** — The mode is the value that appears most often in a data set. The number 7 appears three times — more than any other value — making it the mode of the set.
- 65. C** — Chen's row shows 7 book icons, and the legend states each icon represents 2 books. Multiply: $7 \times 2 = 14$ books. Pictographs are decoded by multiplying the number of icons by the value each icon represents.
- 66. B** — A six-sided number cube has three even outcomes (2, 4, 6) and six possible outcomes in total. The probability is $\frac{3}{6}$, which simplifies to $\frac{1}{2}$ but is expressed in favourable-over-total form in the answer choices.
- 67. A** — Range equals the largest value minus the smallest value. The largest temperature is 25°C and the smallest is 10°C , so the range is $25 - 10 = 15^{\circ}\text{C}$.
- 68. D** — Translating 3 units left subtracts 3 from the x -coordinate; translating 2 units down subtracts 2 from the y -coordinate. Applied to (4, 6): $(4 - 3, 6 - 2) = (1, 4)$.
- 69. B** — Volume of a rectangular prism = length \times width \times height = $5 \times 3 \times 4 = 60 \text{ cm}^3$. The unit is cubed because volume measures three-dimensional space.
- 70. C** — The interior angles of any triangle sum to 180° . Subtract the two known angles: $180^{\circ} - 50^{\circ} - 70^{\circ} = 60^{\circ}$. This rule holds regardless of triangle type.
- 71. A** — Since 1 metre equals 100 centimetres, multiply by 100 to convert: $2.5 \times 100 = 250 \text{ cm}$. Moving from a larger unit to a smaller unit requires multiplication.

72. C — Add the two expenses: $\$7.50 + \$3.25 = \$10.75$. Subtract the total from the starting amount: $\$25.00 - \$10.75 = \$14.25$. Combining purchases before subtracting reduces the chance of arithmetic error.

73. D — Convert the percent to a decimal and multiply: $25\% = 0.25$, then $0.25 \times \$4,800 = \$1,200$. As a check, 25% is one quarter, and $\$4,800 \div 4 = \$1,200$.

74. B — A need is something essential for daily life and survival (food, shelter, basic clothing), while a want is something extra desired but not essential (the latest game, designer shoes). Distinguishing needs from wants is a foundational concept for building a personal budget.

75. C — Simple interest = principal \times rate \times time = $\$400 \times 0.04 \times 1 = \16 . The 4% interest rate is converted to its decimal form 0.04 before multiplying.