SIMULATION EXAM 5 (75 QUESTIONS)

SESSION A: READING — NARRATIVE TEXT

Read the following narrative passage carefully. Then answer Questions 1 through 12.

"The Long Walk Home"

For as long as Anya could remember, she had walked home from school with Mia. They lived only a block apart, and from kindergarten through Grade 6, they had taken the same route every day — past the variety store, across the small park with the broken fountain, down Wendell Street with its rows of old maple trees.

On Tuesday, Mia told her.

"My dad got the job in Vancouver."

Anya stopped walking. They were halfway across the park, beside the fountain that had not worked in years.

"When?" Anya said.

"July."

Anya did not know what to say. July was three months away. Three months was both a lot of time and no time at all.

For the rest of that day's walk, neither of them spoke much. Mia kicked a pinecone along the sidewalk for a while. Anya watched a squirrel run up a tree.

The next morning, Anya did not want to go to school. She did not want it to be a school day. She did not want any of this to happen.

But she went anyway, and at the end of the day, there was Mia, waiting for her at the front steps as always.

"Wanna take the long way home?" Mia said.

"The long way" was a route they had invented in Grade 4 — three blocks longer than the usual way, and it passed by the bakery that sometimes gave them day-old cookies for free. They had not taken the long way in months.

They walked slowly. They stopped at the bakery. The woman behind the counter remembered them and gave them each a chocolate chip cookie that was a little dry but still good.

For the next three months, they took the long way home almost every day. They did not talk much about Mia moving. They talked about other things — the books they were reading, the substitute teacher they liked, a dog they always saw at the park. They walked in the rain. They walked in the heat. Once they walked in a thunderstorm and laughed so hard their stomachs hurt.

On the last Friday before Mia left, they walked home one final time. Anya had been dreading it. But somehow, when it came, it felt almost ordinary. Mia kicked her pinecone. Anya watched her squirrel. They stopped for cookies.

At Mia's gate, they hugged for a long moment, and then Mia went inside.

Anya walked the rest of the way home alone.

The next Monday, she walked home alone again. And the Monday after that. But she always took the long way now, and she always thought, on the part where she passed the broken fountain, about how good it had been to have a friend to walk with for so many years.

1. How long had Anya and Mia walked home from school together?

A. Since the beginning of Grade 4 that fall

B. Since Grade 6 had started in September

C. Only for the last year or so before Mia moved

D. Since they were in kindergarten together

2. Where were Anya and Mia when Mia gave Anya the news about moving?

A. Halfway across the small neighbourhood park

B. At the front steps of their school in the afternoon

C. Inside the variety store waiting for a snack

D. At the gate of Mia's house after the long walk

3. What had Mia's father just gotten?

A. A long-awaited promotion at his current company

B. A new job in the city of Vancouver

C. A teaching position at a different elementary school

D. A bigger house in another town nearby

4. How does Anya feel the morning AFTER Mia shares the news?

A. Excited to plan a big farewell party for her friend

B. Curious about what Vancouver might be like

C. Reluctant to go to school that day

D. Angry at Mia for not telling her sooner

5. What is "the long way" that Mia suggests they take home?

A. A route that is three blocks longer than usual and passes the bakery

B. A path that goes through the back of the school sports field

C. A route that avoids the park and the broken old fountain

D. A path that goes by Mia's older sister's house and back

6. What does the woman at the bakery do for the girls?

A. She gives them a discount on a fresh loaf of bread

B. She lets them sit at the counter while they eat

C. She tells them stories about her own school days

D. She gives them each a chocolate chip cookie

7. Over the three months before Mia moves, what do the girls MOSTLY do on their walks home?

A. They argue about who should visit whom first after the move

B. They talk about books, teachers, and other ordinary things

C. They make long lists of all the things they will miss together

D. They walk silently because both are too sad to speak much

8. What does the word "dreading" mean as it is used in the passage?

A. Looking forward to something with great excitement

B. Forgetting completely about something important

C. Feeling fearful or anxious about something to come

D. Remembering an event from a long time ago

9. What SURPRISES Anya about the final walk home with Mia?

A. It feels almost ordinary, just like other walks they have had

B. Mia has decided not to move to Vancouver after all

C. Their teacher joins them for part of the walk that day

D. They run into Mia's father at the bakery near the end

10. What does Anya begin doing AFTER Mia moves away?

A. She finds a new friend to walk with each day after school

B. She rides her bicycle home instead of walking on foot

C. She stops walking past the broken fountain in the park

D. She always takes the long way home from school

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

A. Friends will always live near each other no matter what changes

B. Children should not be told about family moves until the very last moment

C. The memory of meaningful friendship stays with us even when friends move away

D. The shortest route is always the best way to get home from school

12. Open-Response. Explain how Anya's walks home change over the course of the passage. Use specific details from the passage to support your answer.

(Write your response in the space provided.)

SESSION B: READING — INFORMATIONAL TEXT

Read the following informational passage carefully. Then answer Questions 13 through 18.

"How Auroras Light the Sky"

On certain clear nights in the Canadian North, the sky comes alive. Bands of green, pink, and purple light ripple across the darkness, sometimes lasting for hours. This rare and beautiful display is called an aurora — and the science behind it begins ninety-three million miles away, on the surface of the sun.

The sun is constantly throwing out tiny particles called electrons. Most of these particles fly off into space and never come close to Earth. But every so often, a great burst of these particles — called a solar wind — comes streaming toward our planet at a speed of more than a million kilometres per hour.

When the solar wind reaches Earth, something remarkable happens. Earth's magnetic field, which is invisible but very real, scoops up many of the electrons and funnels them toward the North and South poles. As the particles fall through the upper atmosphere, they crash into the gases that make up our air — mostly oxygen and nitrogen — and cause those gases to glow.

The colour of the glow depends on which gas the particles hit, and at what altitude. Oxygen low in the atmosphere produces a bright green light, the most common colour seen in auroras. Oxygen high in the atmosphere can produce red. Nitrogen produces blue and purple.

Because Earth's magnetic field funnels the particles to the poles, auroras are seen mostly near the Arctic and Antarctic. In the Northern Hemisphere, the lights are called the aurora borealis, or northern lights. In the Southern Hemisphere, they are called the aurora australis, or southern lights. In Canada, areas like Yellowknife, Whitehorse, and northern Manitoba offer some of the best viewing in the world.

For thousands of years, people who lived in northern regions told stories to explain the lights. Some Indigenous peoples saw them as the spirits of ancestors dancing in the sky. Today we understand the science — but the wonder remains the same.

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

A. Auroras are colourful light displays caused by particles from the sun interacting with Earth's atmosphere

B. The northern lights are most often viewed in the Canadian cities of Yellowknife and Whitehorse

C. Indigenous peoples used stories to explain natural events such as the northern lights

D. Earth's magnetic field protects the planet from harmful particles released by the solar wind

14. According to the passage, what causes an aurora to appear GREEN?

A. Nitrogen high in the atmosphere being struck by solar particles

B. Earth's magnetic field reflecting the solar wind toward the poles

C. Cold air at high altitude scattering moonlight in unusual ways

D. Oxygen low in the atmosphere being struck by solar particles

15. What does the word "funnels" mean as it is used in the passage?

A. Burns or destroys something quickly with intense heat

B. Directs or channels something toward a specific place

C. Mixes together with several other unrelated materials

D. Cools or freezes solid in very cold temperatures

16. How fast can the solar wind travel toward Earth?

A. Ninety-three million kilometres per hour at top speed

B. Faster than the speed of light in deep space

C. More than a million kilometres per hour

D. About one hundred kilometres per hour on average

17. Why did the author MOST LIKELY include the final paragraph about Indigenous stories?

A. To show that wonder about the auroras has been shared across many cultures and times

B. To convince readers to visit the Yellowknife region as soon as they can

C. To argue that ancient explanations were more accurate than modern science

D. To compare the auroras to other unusual weather events around the world

18. Open-Response. Explain why the author says "the wonder remains the same" at the end of the passage. Use specific details from the passage to support your answer.

(Write your response in the space provided.)

SESSION C: WRITING — CONVENTIONS & COMPOSITION

Answer Questions 19 through 30 by selecting the best answer. Then complete the writing prompt in Question 31.

19. Which sentence is punctuated CORRECTLY with a semicolon?

A. The students; were excited about the upcoming field trip

B. I forgot my lunch; my mother brought it to school later;

C. After school I went home; ate dinner; and did homework

D. The rain poured heavily; we decided to stay indoors

20. Which sentence uses an ADVERB to modify a verb?

A. The bright sunshine warmed the afternoon air

B. The children played quietly in the library all morning

C. The old book sat unread on the dusty shelf

D. The clever fox slipped through the narrow wire fence

21. Which sentence uses correct punctuation for a possessive PLURAL noun?

A. The teachers' meeting will start at four o'clock today

B. The teacher's meeting will be held in Room 12 this Friday

C. The teachers meeting was a long and tiring discussion

D. The teachers's meeting lasted the entire afternoon

22. Which option BEST completes the sentence?

Neither the dog _____ the cat _____ allowed on the furniture.

A. or / are

B. nor / are

C. nor / is

D. or / is

23. Which sentence shows correct use of a HYPHEN?

A. The well, known author signed copies of her book at the store

B. The well-known author, signed copies of her book at the store

C. The wellknown author signed copies of her book at the store

D. The well-known author signed copies of her book at the store

24. Which transitional word BEST joins these two ideas?

I had studied for hours; _____, I felt confident about the test.

A. however

B. therefore

C. nevertheless

D. on the other hand

25. In the sentence below, which word is a PREPOSITION?

The book on the table belongs to my sister.

A. on

B. table

C. belongs

D. my

26. Which sentence has CORRECT subject–verb agreement?

A. The team are practising on the school field today

B. There is many books on the library shelf

C. The pile of books on the desk is very heavy

D. Each of the students bring a notebook to class

27. Which sentence is in the FUTURE tense?

A. The students finished their projects yesterday afternoon

B. The students are finishing their projects this morning

C. The students have already finished their projects

D. The students will finish their projects tomorrow

28. Which sentence is written CORRECTLY in the PAST tense?

A. Last weekend, we went to the museum and saw the dinosaur exhibit

B. Last weekend, we go to the museum and see the dinosaur exhibit

C. Last weekend, we goes to the museum and sees the dinosaur exhibit

D. Last weekend, we going to the museum and seeing the dinosaur exhibit

29. Which sentence uses an apostrophe CORRECTLY in a contraction?

A. Theyre going to arrive at the train station around noon today

B. They're going to arrive at the train station around noon today

C. Theyr'e going to arrive at the train station around noon today

D. The'yre going to arrive at the train station around noon today

30. Which option BEST corrects this sentence with a dangling modifier?

Walking to school, the rain began to fall on my umbrella.

A. The rain began to fall on my umbrella while walking to school

B. The umbrella, walking to school, the rain began to fall on it

C. On my umbrella the rain began to fall while walking to school

D. While I was walking to school, the rain began to fall on my umbrella

31. Open-Response — Writing Prompt.

Think about a time when you faced a difficult choice. Write a piece in which you describe the situation and explain how you decided what to do.

Be sure to:

- Have a clear focus and main idea
- Include specific details that help the reader understand both the choice you faced and your reasoning
- Organize your ideas logically
- Use correct grammar, spelling, and punctuation

(Write your response in the space provided.)

SESSION D: MATHEMATICS — STAGE 1

Answer Questions 32 through 50 by selecting the best answer.

32. What is the value of the digit 8 in the number 4,283,605?

A. 8

B. 800

C. 80,000

D. 8,000

33. What is 1,000 − 287?

A. 713

B. 723

C. 813

D. 287

34. Which decimal is EQUIVALENT to the fraction 3/8?

A. 0.83

B. 0.38

C. 0.3

D. 0.375

35. A school has 28 classrooms. If each classroom has 24 students, how many students are in the school in total?

A. 52

B. 672

C. 768

D. 730

36. A jacket costs $60. What is 10% of $60?

A. $6

B. $10

C. $60

D. $0.60

37. What is 5/6 − 1/3?

A. 1/3

B. 4/3

C. 1/2

D. 4/6

38. Mai has 3 boxes of pencils. Each box contains 24 pencils. She gives away 18 pencils to her classmates. How many pencils does she have LEFT?

A. 27 pencils

B. 39 pencils

C. 42 pencils

D. 54 pencils

39. A recipe uses 4 cups of water for every 3 cups of rice. If the cook uses 8 cups of water, how many cups of rice will she need?

A. 5 cups

B. 6 cups

C. 9 cups

D. 12 cups

40. What is the value of 8 − 2x when x = 3?

A. 6

B. 2

C. −2

D. 18

41. Solve for n: n − 7 = 12

A. 5

B. 84

C. 19

D. −5

42. What is the NEXT term in this pattern: 1, 3, 7, 15, 31, …?

A. 47

B. 51

C. 63

D. 62

43. Simplify the expression: 6m + 4 − 3m + 8

A. 9m + 12

B. 3m + 12

C. 3m + 4

D. 15m

44. Look at the pseudocode below.

SET x = 5

IF x > 3 THEN multiply x by 2

Display x

What value will be displayed?

A. 10

B. 5

C. 3

D. 2

45. What is the mean of these numbers: 12, 18, 15, 21, 24?

A. 12

B. 15

C. 18

D. 21

46. A standard six-sided die is rolled once. What is the probability of rolling a number GREATER than 4?

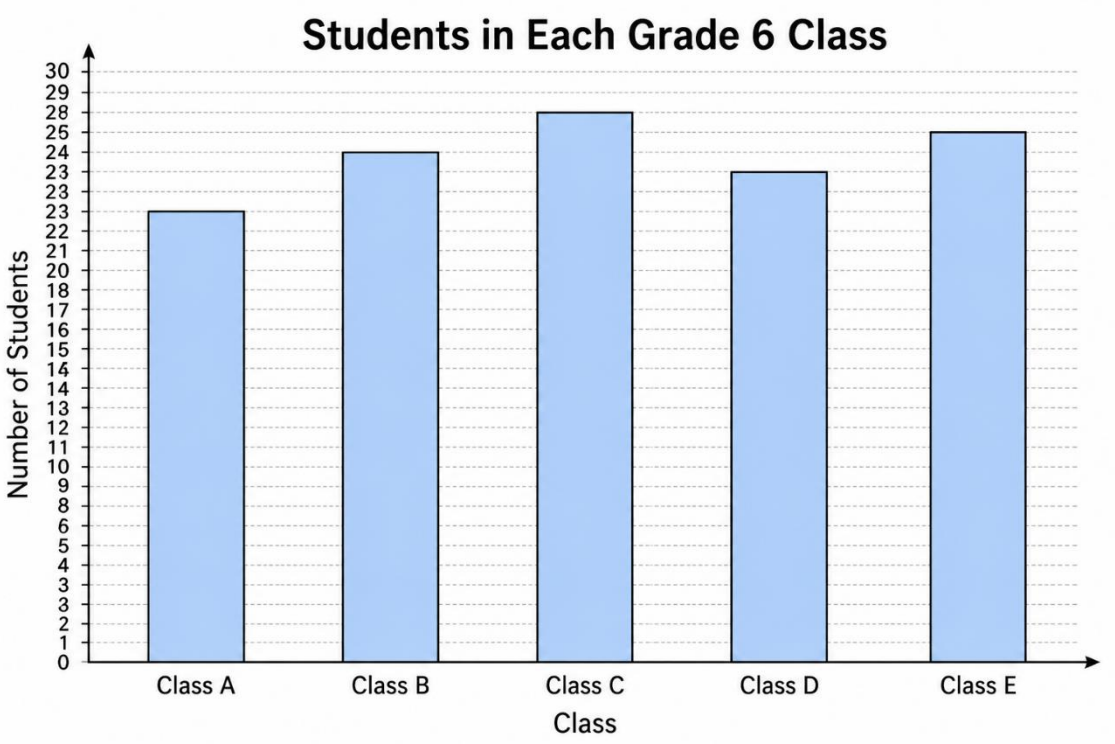
A. 1/6

B. 4/6

C. 1/2

D. 1/3

47. The bar graph below shows the number of students in each of five Grade 6 classes at one school. How many MORE students are in Class C than in Class A?



A. 4 students

B. 6 students

C. 8 students

D. 28 students

48. What is the range of these test scores: 78, 85, 92, 67, 88?

A. 25

B. 11

C. 78

D. 92

49. A bag contains 6 red marbles, 4 blue marbles, and 2 yellow marbles. What is the probability of drawing a BLUE marble at random?

A. 4/2

B. 6/12

C. 2/12

D. 1/3

50. Which of the following is a PRIME number?

A. 9

B. 21

C. 17

D. 15

SESSION D: MATHEMATICS — STAGE 2

Answer Questions 51 through 75 by selecting the best answer.

51. What is 4.6 × 3?

A. 12.18

B. 13.8

C. 14.2

D. 18.0

52. Convert the fraction 5/8 to a percent.

A. 62.5%

B. 58%

C. 5.8%

D. 80%

53. Solve for y: $4y + 5 = 29$

A. 7

B. 8

C. 5

D. 6

54. A rectangle has a length of 11 cm and a width of 7 cm. What is its PERIMETER?

A. 18 cm

B. 77 cm

C. 36 cm

D. 88 cm

55. What is the VOLUME of a rectangular prism with a length of 6 cm, a width of 4 cm, and a height of 3 cm?

A. 13 cm^3

B. 72 cm^3

C. 28 cm^3

D. 108 cm^3

SESSION D: MATHEMATICS — STAGE 3 (CONTINUED)

56. How many degrees are in a STRAIGHT angle?

A. 90°

B. 45°

C. 360°

D. 180°

57. Convert 2.5 kilometres into metres.

A. 2,500 m

B. 250 m

C. 25 m

D. 25,000 m

58. A square has a side length of 9 cm. What is its AREA?

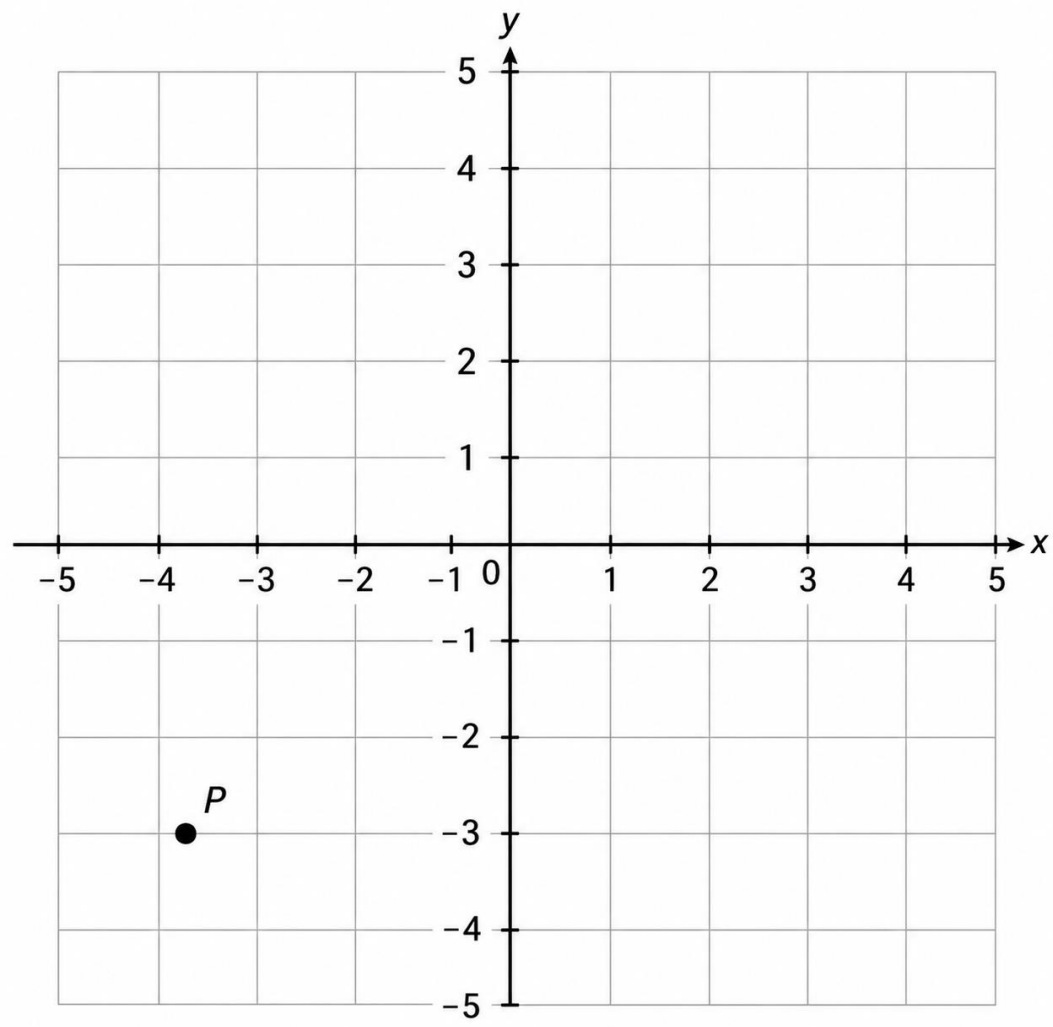
A. 18 cm^2

B. 36 cm^2

C. 81 cm^2

D. 99 cm^2

59. On the coordinate plane below, what are the coordinates of point P?



A. (−3, −4)

B. (−4, −3)

C. (4, −3)

D. (−4, 3)

60. The point R(2, 5) is reflected across the x-axis. What are the new coordinates of R'?

A. (−2, 5)

B. (5, 2)

C. (−2, −5)

D. (2, −5)

61. How many EDGES does a triangular prism have?

A. 9

B. 6

C. 12

D. 5

62. Two angles are SUPPLEMENTARY. If one angle measures 110°, what is the measure of the OTHER angle?

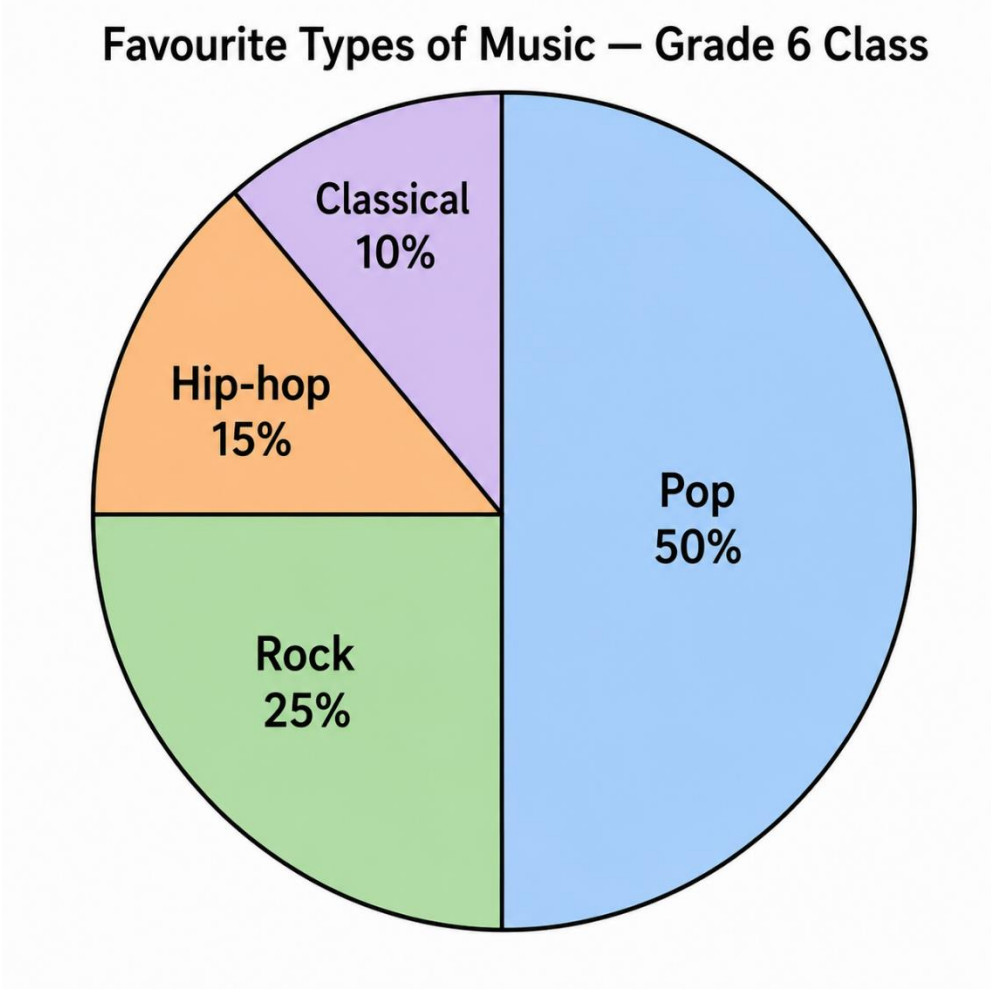
A. 90°

B. 80°

C. 70°

D. 110°

63. The circle graph below shows the favourite types of music for students in a Grade 6 class. What FRACTION of the students chose rock music?



A. 1/2

B. 1/4

C. 1/8

D. 1/3

64. What is the median of these numbers: 14, 22, 9, 18, 11, 16, 25?

A. 16

B. 14

C. 18

D. 11

65. A spinner is divided into 10 equal sections numbered 1 through 10. What is the probability of spinning a number that is a MULTIPLE of 3?

A. 1/10

B. 4/10

C. 1/2

D. 3/10

66. The table below shows a relationship between x and y. Which equation BEST represents the relationship?

| x | y |

|---|---|

| 1 | 5 |

| 2 | 8 |

| 3 | 11 |

| 4 | 14 |

A. $y = x + 4$

B. $y = 2x + 3$

C. $y = 3x + 2$

D. $y = 5x$

67. Simplify the expression: $4a + 7b - 2a + 3b$

A. $6a + 10b$

B. $2a + 10b$

C. $6a + 4b$

D. $2a + 4b$

68. Look at the pseudocode below.

SET count = 0

FOR each number from 1 to 6: IF the number is even THEN add 1 to count

Display count

What value will be displayed?

A. 6

B. 1

C. 2

D. 3

69. Round the number 27.45 to the nearest WHOLE number.

A. 27

B. 27.5

C. 28

D. 27.4

70. What is the least common multiple (LCM) of 4 and 6?

A. 24

B. 2

C. 12

D. 10

SESSION D: MATHEMATICS — STAGE 4

71. Which type of account is BEST designed for everyday spending, with easy access through debit cards and online transfers?

A. Savings account

B. Chequing account

C. Tax-Free Savings Account (TFSA)

D. Registered Retirement Savings Plan (RRSP)

72. Lily wants to save $300 for a new bicycle. If she saves $25 each month, how many MONTHS will it take her to reach her goal?

A. 12 months

B. 10 months

C. 15 months

D. 8 months

73. Eli deposits $250 into a savings account that pays 4% simple interest each year. How much interest will he earn after ONE year?

A. $4

B. $25

C. $40

D. $10

74. Which of the following is a possible CONSEQUENCE of paying only the minimum amount on a credit card balance each month?

A. The card issuer will close the credit card account quickly

B. Interest charges accumulate and the balance grows over time

C. The cardholder will receive a refund of all fees and charges

D. The credit card will be replaced with a higher-limit card automatically

75. A school is collecting cans for a food drive. Class 6A collected 87 cans, Class 6B collected 64 cans, and Class 6C collected 109 cans. How many cans did they collect in TOTAL?

A. 196 cans

B. 173 cans

C. 260 cans

D. 250 cans

ANSWER KEY & DETAILED EXPLANATIONS – SIMULATION EXAM *5*

1. D — The opening paragraph states that Anya and Mia "from kindergarten through Grade 6, they had taken the same route every day." This direct-recall fact places the start of their walking routine in kindergarten, spanning the entire elementary school period.

2. A — The passage states: "They were halfway across the park, beside the fountain that had not worked in years." This places the news exchange explicitly in the middle of the park near the broken fountain.

3. B — Mia tells Anya directly: "My dad got the job in Vancouver." This is a direct-quote recall question whose answer appears verbatim in the dialogue.

4. C — The passage states: "The next morning, Anya did not want to go to school. She did not want it to be a school day. She did not want any of this to happen." The repeated "did not want" sentences establish reluctance as her dominant feeling.

5. A — The narrator describes "the long way" as a route "three blocks longer than the usual way" that "passed by the bakery." Option A captures both the extra distance and the bakery location.

6. D — The text describes: "The woman behind the counter remembered them and gave them each a chocolate chip cookie that was a little dry but still good." Cookies, not bread, stories, or seats, are what the woman provides.

7. B — The passage lists: "They talked about other things — the books they were reading, the substitute teacher they liked, a dog they always saw at the park." Books, teachers, and ordinary observations match option B exactly.

8. C — In context, "Anya had been dreading it" describes her feeling toward the final walk before Mia leaves. "Dreading" means feeling fearful or anxious about an upcoming event, which fits the lead-up to a sad goodbye.

9. A — The passage states: "But somehow, when it came, it felt almost ordinary." The surprise is that the moment Anya had dreaded turned out to feel like any other walk together.

10. D — The closing paragraph notes that Anya "always took the long way now" after Mia's move. Continuing the long-way ritual is the specific change in her routine.

11. C — The story ends with Anya thinking "about how good it had been to have a friend to walk with for so many years." This focus on lasting memory of friendship after parting matches option C's theme.

12. OPEN-RESPONSE — A strong Code 40 response traces the change from shared daily walks with Mia, to the longer ritual walks during the three months before the move, to the solitary walks that still take the long way after Mia leaves. Code 40 responses cite specific moments — the kindergarten origin, the bakery cookies, the thunderstorm laughter, the final hug at Mia's gate, and the closing reflection at the broken fountain — and explain how each shows the change in Anya's walks.

13. A — The opening paragraph introduces auroras as a beautiful light display, and the body of the passage explains the chain of cause and effect from solar particles through Earth's magnetic field to glowing atmospheric gases. Option A captures both the phenomenon and the mechanism.

14. D — The passage states: "Oxygen low in the atmosphere produces a bright green light, the most common colour seen in auroras." Low-altitude oxygen struck by solar particles is the direct cause of the green colour.

15. B — In context, Earth's magnetic field "funnels them toward the North and South poles" describes how the field directs the particles to a specific location. To funnel something is to channel or direct it to a particular place, matching option B.

16. C — The passage states the solar wind "comes streaming toward our planet at a speed of more than a million kilometres per hour." This is a direct-recall fact appearing in the second paragraph.

17. A — The final paragraph mentions Indigenous explanations of the lights and ends with "we understand the science — but the wonder remains the same." This shows that across cultures and through time, people have shared the same sense of awe about the auroras.

18. OPEN-RESPONSE — A strong Code 40 response explains that even though modern science has revealed the physical causes of auroras (solar wind, magnetic field, gas interactions), the visual beauty of the lights continues to inspire awe just as it did for Indigenous peoples and others who told stories about them. Code 40 responses cite specific details — the descriptions of colour and movement, the historical

and Indigenous explanations, and the closing line — and explain how knowledge of the science does not diminish the experience.

19. D — A semicolon joins two complete independent clauses without a coordinating conjunction. "The rain poured heavily; we decided to stay indoors" links two complete sentences correctly; the other options misuse semicolons within fragments, in series, or after subjects.

20. B — An adverb modifies a verb, adjective, or another adverb. In option B, "quietly" is the adverb and "played" is the verb it modifies. Options A and C contain only adjectives modifying nouns, with no adverb-to-verb relationship.

21. A — The plural of "teacher" is "teachers," and the plural possessive is formed by adding only an apostrophe after the s: "teachers'." Option A applies this rule; B is the singular possessive, C omits the apostrophe, and D uses a non-standard form.

22. C — The correlative conjunction pair is "neither…nor" (not "neither…or"). With two singular subjects joined by "nor," the verb agrees with the nearer subject — "cat" — so it takes the singular form "is."

23. D — A compound modifier preceding a noun is joined with a hyphen. "Well-known" describes "author" and is correctly hyphenated in option D; A uses a comma, B misplaces it, and C omits the hyphen.

24. B — The two clauses share a cause-and-effect relationship: studying for hours produced the feeling of confidence. "Therefore" signals consequence, while "however" and "nevertheless" signal contrast and "on the other hand" signals comparison.

25. A — A preposition shows the relationship between a noun and another word in the sentence. "On" relates "book" to "table," indicating location, making it a preposition. "Table" is a noun, "belongs" is a verb, and "my" is a possessive pronoun.

26. C — The subject "pile" is singular, so it requires the singular verb "is." The prepositional phrase "of books on the desk" does not change the subject's number. The other options pair singular subjects with plural verbs or use incorrect verb forms.

27. D — The future tense uses the helping verb "will" plus the base form of the main verb. "Will finish" with the time marker "tomorrow" correctly places the action in the future, while the other options use past, present progressive, or present perfect tense.

28. A — The simple past tense uses the past-tense form of each verb. "Went" and "saw" are correct past-tense forms paired with the time marker "last weekend." The other options use present tense, third-person singular incorrectly, or progressive forms without auxiliaries.

29. B — A contraction shortens two words by removing letters and replacing them with an apostrophe at the exact point of omission. "They're" combines "they" and "are" with the apostrophe correctly placed where the "a" is dropped; the other options omit or misplace the apostrophe.

30. D — A dangling modifier creates confusion about who is performing the action. The original sentence suggests the rain was walking to school. Option D adds the subject "I" so the modifier "while I was walking to school" clearly refers to a person, fixing the ambiguity.

31. OPEN-RESPONSE — A strong Code 30 or 40 response describes one specific difficult choice, presents the competing options or considerations that made it difficult, explains the reasoning behind the final decision, and includes concrete details so the reader can understand the situation. Strong responses show reflection rather than offering generic statements like "I chose the right thing."

32. C — In 4,283,605, the digit 8 sits in the ten thousands place. Its value is therefore $8 \times 10{,}000 = 80{,}000$. Place value increases by a factor of 10 with each position to the left.

33. A — Subtract by stacking the values and borrowing where needed: $1{,}000 - 287 = 713$. As a check, $713 + 287 = 1{,}000$, confirming the difference.

34. D — To convert 3/8 to a decimal, divide 3 by 8: $3 \div 8 = 0.375$. The result terminates after three decimal places.

35. B — Multiply the number of classrooms by the students per classroom: $28 \times 24 = 672$. Splitting one factor helps: $(28 \times 20) + (28 \times 4) = 560 + 112 = 672$.

36. A — 10% means one-tenth, so 10% of \$60 = \$60 ÷ 10 = \$6. The benchmark "10% equals one-tenth" is one of the most useful mental-math shortcuts.

37. C — Rewrite 1/3 with the common denominator 6: $1/3 = 2/6$. Then $5/6 - 2/6 = 3/6$, which simplifies to 1/2. Fractions can only be subtracted once their denominators match.

38. D — Find the total pencils first: $3 \times 24 = 72$ pencils. Subtract the pencils given away: $72 - 18 = 54$ pencils remaining.

39. B — The ratio of water to rice is 4:3. With 8 cups of water (which is 2 times the 4-cup ratio unit), the rice must also be 2 times the 3-cup ratio unit: $3 \times 2 = 6$ cups.

40. B — Substitute $x = 3$ into $8 - 2x$: $8 - 2(3) = 8 - 6 = 2$. Order of operations requires multiplication before subtraction.

41. C — Add 7 to both sides to isolate n: $n = 12 + 7 = 19$. The balance principle requires the same operation on both sides of the equation.

42. C — Each term equals double the previous term plus 1. Applied to the fifth term: $31 \times 2 + 1 = 63$. The differences (2, 4, 8, 16, 32) double each time, which also confirms the next term is $31 + 32 = 63$.

43. B — Group like terms by combining coefficients: $6m - 3m = 3m$, and $4 + 8 = 12$. The simplified expression is $3m + 12$.

44. A — The IF condition "x > 3" is true because 5 > 3. The code then multiplies x by 2, giving x = 10. The final displayed value is 10.

45. C — Add the five values: 12 + 18 + 15 + 21 + 24 = 90. Divide by the number of values: 90 ÷ 5 = 18. The mean is the total divided by the count.

46. D — Numbers greater than 4 on a six-sided die are 5 and 6 — that is 2 favourable outcomes out of 6 total. Probability = 2/6, which simplifies to 1/3.

47. B — From the bar graph, Class C has 28 students and Class A has 22 students. The difference is 28 − 22 = 6 students.

48. A — Range equals the largest value minus the smallest value. The largest score is 92 and the smallest is 67, so the range is 92 − 67 = 25.

49. D — Total marbles = 6 + 4 + 2 = 12. Favourable outcomes (blue) = 4, so probability = 4/12, which simplifies to 1/3 after dividing both numbers by 4.

50. C — A prime number has exactly two factors: 1 and itself. 17 has no factors other than 1 and 17, making it prime. The other options factor as 9 = 3 × 3, 21 = 3 × 7, and 15 = 3 × 5, so they are composite.

51. B — Multiply 4.6 × 3 by splitting the decimal: 4 × 3 + 0.6 × 3 = 12 + 1.8 = 13.8. The decimal can also be done by ignoring the decimal point: 46 × 3 = 138, then placing one decimal place to give 13.8.

52. A — Divide 5 by 8 to get the decimal: 5 ÷ 8 = 0.625. Multiplying by 100 converts the decimal to a percent: 62.5%.

53. D — Subtract 5 from both sides: 4y = 24. Divide both sides by 4: y = 6. Two-step equations are solved by undoing operations in reverse order.

54. C — Perimeter of a rectangle = 2(length + width) = 2(11 + 7) = 2(18) = 36 cm. The formula doubles the sum of one length and one width to account for all four sides.

55. B — Volume of a rectangular prism = length × width × height = 6 × 4 × 3 = 72 cm^3. The unit is cubed because volume measures three-dimensional space.

56. D — A straight angle is formed by two opposite rays, measuring exactly 180°. This is half of a full rotation (360°) and twice a right angle (90°).

57. A — Since 1 kilometre equals 1,000 metres, multiply: 2.5 × 1,000 = 2,500 m. Converting from a larger unit to a smaller unit requires multiplication.

58. C — Area of a square = side × side = 9 × 9 = 81 cm^2. The unit is squared because area measures two-dimensional space.

59. B — Point P sits 4 units to the left of the y-axis (so x = −4) and 3 units below the x-axis (so y = −3), giving coordinates (−4, −3). Coordinates are always written in the order (x, y).

60. D — Reflection across the x-axis keeps the x-coordinate unchanged and changes the sign of the y-coordinate: (x, y) → (x, −y). Applied to (2, 5): R' = (2, −5).

61. A — A triangular prism has 9 edges: 3 around the top triangle, 3 around the bottom triangle, and 3 vertical edges connecting matching vertices. The total for any prism equals 3 times the number of sides of the base polygon.

62. C — Supplementary angles sum to 180°. So the unknown angle is 180° − 110° = 70°. This contrasts with complementary angles, which sum to 90°.

63. B — The rock wedge represents 25% of the circle. Converting 25% to a fraction gives 25/100 = 1/4. One-quarter of a circle is the visual equivalent of 25%.

64. A — Order the values: 9, 11, 14, 16, 18, 22, 25. With seven values (an odd count), the median is the middle (4th) value, which is 16.

65. D — Multiples of 3 between 1 and 10 are 3, 6, and 9 — that is 3 favourable outcomes out of 10 total. Probability = 3/10.

66. C — Testing the equation y = 3x + 2 against each row: 3(1) + 2 = 5 ✓, 3(2) + 2 = 8 ✓, 3(3) + 2 = 11 ✓, 3(4) + 2 = 14 ✓. The equation matches every row of the table.

67. B — Group like terms by variable: (4a − 2a) + (7b + 3b) = 2a + 10b. Only terms with the same variable can be combined.

68. D — The loop checks each number from 1 to 6 and adds 1 to the counter for each even number. Even numbers in this range are 2, 4, and 6 — three values — so the final count displayed is 3.

69. A — To round 27.45 to the nearest whole number, look at the tenths digit (4). Since 4 < 5, round down, leaving the whole part unchanged at 27.

70. C — Multiples of 4: 4, 8, 12, 16, 20… Multiples of 6: 6, 12, 18, 24… The smallest number appearing in both lists is 12, making it the LCM.

71. B — A chequing account is designed for everyday spending with frequent transactions, easy access through debit cards, and online transfers. Savings, TFSA, and RRSP accounts are designed for storing money over time, not for daily spending.

72. A — Divide the savings goal by the monthly amount: \$300 ÷ \$25 = 12 months. This kind of division converts a financial goal into a clear time frame.

73. D — Simple interest = principal × rate × time = \$250 × 0.04 × 1 = \$10. The 4% rate is converted to its decimal form 0.04 before multiplying.

74. B — When only the minimum payment is made on a credit card, interest is charged on the remaining balance each month, causing the total owed to grow over time. This compounding effect is a primary cause of long-term credit-card debt.

75. C — Add the three quantities: 87 + 64 = 151, and 151 + 109 = 260 cans. Adding values in pairs is a reliable way to handle three-number sums.