Writing ★ Mathematics Practice Test Book

Grade 10 SBA–HSGQE

HSGQE Retest

10P01WM

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STUDENT'S LAST NAME	STUDENT'S FIRST NAME	MI

STATE STUDENT ID NUMBER
0 1 2 3 4 5 6 7 8 9

BIRTHDATE			
Month	Day		Year
○ Jan			
○ Feb			
○ Mar	0 1 2 3	0 1 2 3	0 1 2 3
○ Apr			
○ May			
○ Jun			
○ Jul		4 5 6 7 8 9	4 5 6 7 8 9
○ Aug			
○ Sep			
○ Oct			
○ Nov			
○ Dec			

TEACHER USE ONLY

Fill in all that apply for each subject.

- Ⓦ Ⓜ **Large Print**
- Ⓦ Ⓜ **Braille**
- Ⓦ Ⓜ **Modified – Altered Exam No Score Generated**
- Ⓦ Ⓜ **Absent**
- Ⓦ Ⓜ **Student Refusal**
- Ⓦ Ⓜ **Parent Refusal**
- Ⓦ Ⓜ **Suspension**
- Ⓦ Ⓜ **Invalid No Score Generated**

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Alaska

Comprehensive System of Student Assessment

Grade 10 Standards Based Assessments

Writing

FORM 10P01WM

For an item that is **not** multiple-choice, you must respond to what is requested, write in English, and make sure that your responses are readable. No credit will be given to any response that

- is too short to score
- consists of "I don't know"
- indicates refusal to respond to the item
- consists of copying the item
- does not address the item or topic
- is not legible
- is written in a language other than English. (If part of the response is in English, that part will be scored.)

SAMPLE QUESTIONS

Directions

Read the paragraphs. They have mistakes that need to be corrected. Use the paragraphs to answer Samples A and B.

[1] Every summer my community has a celebration. [2] Takes part in the event. [3] Some community organizations hold contests that are fun for all ages.

[4] My little sister has a pet dog. [5] We also feast on the favorite foods of our area.

Sample A

Choose the correct way to write Sentence 2.

Ⓐ Everyone takes part in the event.

Ⓑ Taking part in the event.

Ⓒ Everyone taking part in the event.

Ⓓ It is correct as is.

Sample B

Which sentence does not belong in the paragraph?

Ⓐ Sentence 2

Ⓑ Sentence 3

Ⓒ Sentence 4

Ⓓ Sentence 5

STOP

Directions

Choose the sentence that is written correctly.

Sample C

Ⓐ Black bears gain as much weight, as they can in the summer.

Ⓑ Black bears gain as much weight as they can in the summer?

Ⓒ Black bears gain as much weight as they can in the summer.

Ⓓ Black bears, gain as much weight as they can in the summer.

Directions

Read the sentences. On the lines below, write the sentences and correct the four capitalization errors.

Sample D

mary dreamed of a trip to Washington. She wanted to visit a Museum and see the Real copy of the declaration of Independence.

STOP

Sample E

Read the information.

My twin brother's name is Patrick.

Patrick has been taking music lessons since he was five years old.

Patrick's favorite style of music is jazz.

Combine the information into one complete sentence.

Sample F

Write the sentences below in a paragraph, putting them in the order that makes the most sense. Add transitional words or phrases as needed to make the paragraph flow.

- *We had won the championship!*
- *The championship game began badly for our basketball team.*
- *As the buzzer sounded to end the game, we scored a basket.*
- *We played hard and tied the score in the final seconds.*

STOP

Directions

Read the passage. It has mistakes that need to be corrected. Use the passage to answer questions 1 through 4.

[1] A special opportunity awaits students who enjoy school and are interested in helping others. [2] This summer Mr. Davis will be conducting Camp Science Fun for children in grades 4–6. [3] Music camps are being held by Mrs. Butterstone. [4] Mr. Davis has openings to help with science labs and field trips for student assistants. [5] Preference will be given to students who are interested in teaching as a career.

[6] If you are interested in one of the four available positions, contact Mr. Davis. [7] He will give you an application form. [8] As part of the process, your parent signing your application, and you writing an essay. [9] You also will be interviewed by several camp employees. [10] Completed applications for the jobs, which pay minimum wage, are due next Wednesday.

1 **The passage was most likely written to**

Ⓐ entertain.

Ⓑ describe.

Ⓒ inform.

Ⓓ persuade.

GO ON

2 **Which sentence does not belong in the passage?**

Ⓐ Sentence 2

Ⓑ Sentence 3

Ⓒ Sentence 5

Ⓓ Sentence 7

3 **Choose the best way to write Sentence 4.**

Ⓐ Mr. Davis has openings for student assistants to help with science labs and field trips.

Ⓑ For student assistants Mr. Davis has openings to help with science labs and field trips.

Ⓒ To help with science labs and field trips for student assistants, Mr. Davis has openings.

Ⓓ With science labs and field trips, Mr. Davis has openings for student assistants to help.

4 **Which best describes Sentence 8?**

Ⓐ It is not a complete sentence.

Ⓑ It is a run-on sentence.

Ⓒ It should be placed at the end of the passage.

Ⓓ It is not relevant and should be deleted.

GO ON

5 **Think about something you would like to accomplish in the future.**

Write one paragraph that identifies what you would like to do and explains why you want to accomplish it. This item is worth 4 points.

☑ **Use the Writing Skills Checklist to check your work.**

Directions

For questions 6 through 8, fill in the circle for the answer you choose.

6 **Which sentence is punctuated correctly?**

Ⓐ Bring the following to the interview; a pen, a resume, and an example of your work.

Ⓑ She was late for the appointment; therefore, she was nervous when she arrived.

Ⓒ The manager was firm; but fair, when conducting the interview.

Ⓓ Please let us know; when the best opportunity is to reach you by phone.

---

7 **Read the sentence.**

Last Fall, Dan wrote a paper for his English class on "The Snows of Kilimanjaro" by American writer Ernest Hemingway.

Which part of the sentence has an error in capitalization?

Ⓐ Last Fall, Dan wrote a paper

Ⓑ for his English class on

Ⓒ "The Snows of Kilimanjaro" by

Ⓓ American writer Ernest Hemingway.

---

8 **Which sentence has a pronoun that is used incorrectly?**

Ⓐ While we were in San Antonio, Texas, Eric and I spent hours listening to the bright, brassy music of the mariachi band.

Ⓑ One evening the mariachi band serenaded Eric and me as we strolled over to stand next to our table.

Ⓒ Tasha selected a CD of the mariachi music as a surprise for Eric and I.

Ⓓ She gave it to Eric and me shortly after our return from the trip.

GO ON

9 **Many people think that the music young people listen to today is a bad influence.**

In an essay, state whether or not you believe the music young people listen to today is a bad influence. Be sure to support your statement with details and examples. This item is worth 6 points.

☑ **Use the Writing Skills Checklist to check your work.**

GO ON

GO ON

GO ON

10 **Read the paragraph. The paragraph contains six spelling errors.**

> When I was a child, my freinds and I spent many summer nights on the rooves of our houses listening to the radio. Weed turn the music on loud and sing along with the latest tunes. Our parents must have thought it was quiet a sight. On one occassion, our parents joined in. It was embarassing at the time, but today it makes me smile.

On the lines below, write the paragraph and correct the errors. This item is worth 2 points.

GO ON

Directions

Read the report. It has mistakes that need to be corrected. Use the report to answer questions 11 through 14.

[1] Since ancient times, secret codes have been used to send messages. [2] Ancient Greek rulers and writers devised and used codes for long distance communications. [3] These codes could only be understood by people who knew the key.

[4] Today most codes rely on substitution; others rely on transposition. [5] Substitution codes use one letter. [6] The letter stands for another letter. [7] They can be broke by looking for spelling patterns, such as double letters, in the words. [8] Also, letter frequency can give clues. [9] For example, the most used letter in English words is e. [10] A code breaker could substitute e for the letter that appears the most.

11 **Where does this sentence best fit in the report?**

The key was a set of symbols or instructions for reading a code.

Ⓐ after Sentence 1

Ⓑ after Sentence 3

Ⓒ after Sentence 7

Ⓓ after Sentence 10

GO ON

12 **Which is the best way to combine Sentences 5 and 6?**

Ⓐ Substitution codes use one letter, so the letter stands for another letter.

Ⓑ Substitution codes use one letter; and, the letter stands for another letter.

Ⓒ Substitution codes use one letter to stand for another letter.

Ⓓ Substitution codes use one letter and another letter.

13 **Choose the correct way to write Sentence 7.**

Ⓐ They can be breaked by looking for spelling patterns, such as double letters, in the words.

Ⓑ They can be broked by looking for spelling patterns, such as double letters, in the words.

Ⓒ They can be broken by looking for spelling patterns, such as double letters, in the words.

Ⓓ It is correct as is.

14 **The writer would like to add an additional paragraph. Based on the details in the second paragraph, choose the best topic for the new paragraph.**

Ⓐ an explanation of the job qualifications of a code breaker

Ⓑ a description of other contributions of ancient Greece

Ⓒ a list and the origin of words that contain the letter e

Ⓓ the definition and examples of transposition codes

GO ON

Directions

For questions 15 through 18, fill in the circle for the answer you choose.

15 **Kevin is writing a paper contrasting basketball and baseball. Which transitions would he most likely use in his paper?**

Ⓐ On the other hand, Conversely, However

Ⓑ First, Second, Third

Ⓒ For example, Furthermore, In addition

Ⓓ Meanwhile, Next, Then

---

16 **Read the outline.**

I.	Thesis statement
II.	Dictionary definition of courage
III.	Examples of physical courage from U.S. history
IV.	Examples of moral courage from U.S. history
V.	Importance of courage

Choose the best thesis statement for an essay based on the outline.

Ⓐ Courage in the United States can take many forms.

Ⓑ Physical courage is more important than moral courage in the United States.

Ⓒ Moral courage is rarely considered a form of courage in the United States.

Ⓓ Both physical and moral courage have shaped the United States.

GO ON

17 **Choose the sentence that does not contain information that is redundant.**

Ⓐ Because salt is so common and easy to obtain, we take it for granted.

Ⓑ Because salt is so common and easy to get and obtain, we take it for granted.

Ⓒ Because salt is everywhere and so common these days, we take it for granted.

Ⓓ Because salt is everywhere today and easy to get nowadays, we take it for granted.

---

18 **Which sentence has a voice that is inconsistent with the style of the others?**

Ⓐ The storm system of Jupiter is called The Great Red Spot.

Ⓑ The rings that surround Saturn consist of ice and particles.

Ⓒ Venus rotates in a direction opposite that of other planets.

Ⓓ Mercury is so hot it would melt a tin can in a split second.

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Use the Writing Skills Checklist below to improve your composition.

Make sure you do the following:

1. Write a composition with a thesis statement that is supported with details, well-developed paragraphs, transitions, and a conclusion.
2. Use appropriate voice.
3. Write so that your composition will make sense to the person who reads it.
4. Vary the sentence structure.
5. Choose your words carefully.
6. Use complete sentences.
7. Use correct grammar.
8. Use correct capitalization and punctuation.
9. Spell words correctly.
10. Write neatly.

Your composition will be scored using the Alaska Comprehensive System of Student Assessment 4- or 6-Point Holistic Rubric.

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Alaska

Comprehensive System of Student Assessment

Grade 10 Standards Based Assessments

Mathematics

FORM 10P01WM

For an item that is **not** multiple-choice, you must respond to what is requested, write in English (and/or mathematics symbols when appropriate), and make sure that your responses are readable. No credit will be given to any response that

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SAMPLE QUESTIONS

Sample A

The coordinates on a grid of the location of 2 trees in a park are (3, 9) and (5, 3). What are the coordinates of the midpoint of the line segment joining the 2 trees?

Ⓐ (2, 6)

Ⓑ (4, 6)

Ⓒ (4, 12)

Ⓓ (8, 12)

Sample B

The table below shows Kelly's telephone bill.

TELEPHONE BILL

Number of Minutes Used	Total Bill
500	$30.00
600	$35.00
700	$40.00

The pattern continues. Kelly uses 1,000 minutes. What will be Kelly's total bill?

Ⓐ $45.00

Ⓑ $50.00

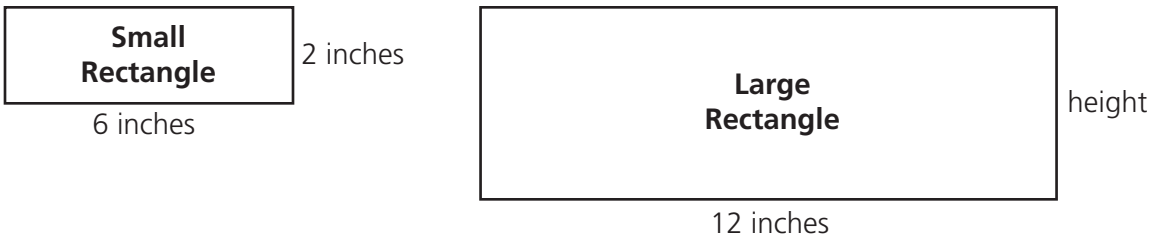
Ⓒ $55.00

Ⓓ $60.00

GO ON

Sample C

Jim is making a similar, large rectangle from a small rectangle as shown below.



What is the height of the large rectangle? This item is worth 2 points.

Show the work.

Answer: _____ inches

STOP

You may use the Mathematics Reference Sheet any time during the test.

1 Travis found the area of a circle using the formula $A = \pi r^2$. What type of number is π?

Ⓐ integer

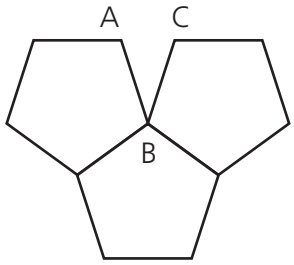
Ⓑ irrational

Ⓒ natural

Ⓓ rational

---

2 The 3 shapes below are the same size and are regular pentagons.



What is the measure of $\angle ABC$?

Ⓐ 18°

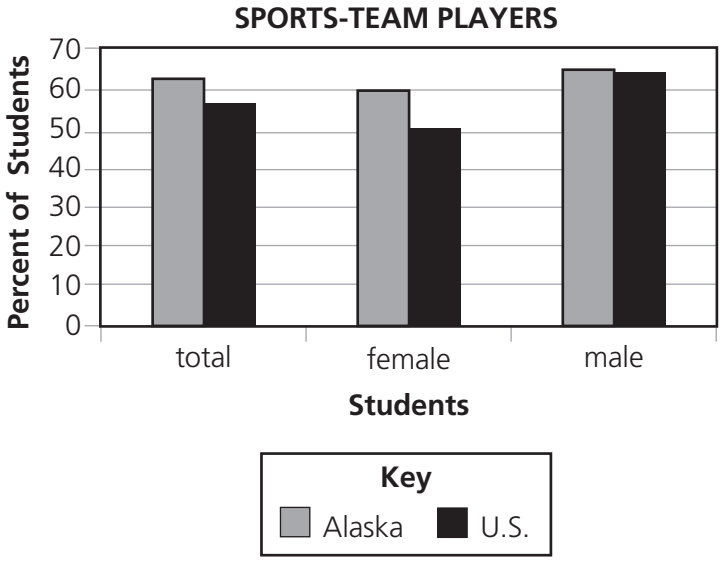
Ⓑ 36°

Ⓒ 45°

Ⓓ 72°

GO ON

3 The bar graph below compares the percent of students in Alaska to the percent of students in the U.S. who played on 1 or more sports teams in a year.



Which table shows the data in the graph?

Ⓐ **SPORTS-TEAM PLAYERS**

Students	Percent in Alaska	Percent in U.S.
total	57	63
female	51	60
male	64	65

Ⓑ **SPORTS-TEAM PLAYERS**

Students	Percent in Alaska	Percent in U.S.
total	65	55
female	60	55
male	65	65

Ⓒ **SPORTS-TEAM PLAYERS**

Students	Percent in Alaska	Percent in U.S.
total	67	52
female	60	56
male	69	68

Ⓓ **SPORTS-TEAM PLAYERS**

Students	Percent in Alaska	Percent in U.S.
total	63	57
female	60	51
male	65	64

GO ON

4 Randy bought a pen on sale. The sale price of the pen was $2.34. The original price of the pen was $3.25. What percent did Randy save by buying the pen on sale?

Ⓐ 28

Ⓑ 39

Ⓒ 72

Ⓓ 91

---

5 The table below shows the value of a car during its first 3 years.

VALUE OF CAR

Year	Value
0	$21,000
1	$18,500
2	$16,000
3	$13,500

The pattern continues. What will be the value of the car in year 6?

Ⓐ $1,000

Ⓑ $3,500

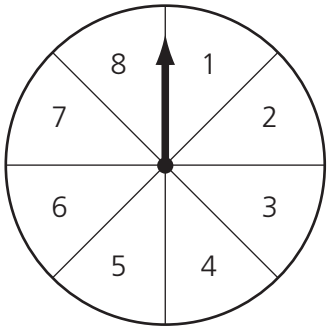
Ⓒ $6,000

Ⓓ $8,500

GO ON

6 The spinner shown below is used in a game.

GAME SPINNER



Esther spins the spinner 8 times and gets an even number 5 times. Which statement correctly compares the experimental and theoretical probability of getting an even number?

Ⓐ The experimental probability is the same as the theoretical probability.

Ⓑ The experimental probability is greater than the theoretical probability by $\frac{1}{8}$.

Ⓒ The experimental probability is less than the theoretical probability by $\frac{1}{8}$.

Ⓓ The experimental probability is greater than the theoretical probability by $\frac{1}{2}$.

GO ON

7 Jenny incorrectly simplified $4^2 \times 4^3$ and got an answer of 16^6. Explain what Jenny did wrong, and write the correct answer on the line below. This item is worth 2 points.

Answer: _____

8 A cylinder has a volume of 150 cubic yards. How many cubic feet is this?

Ⓐ 150×3

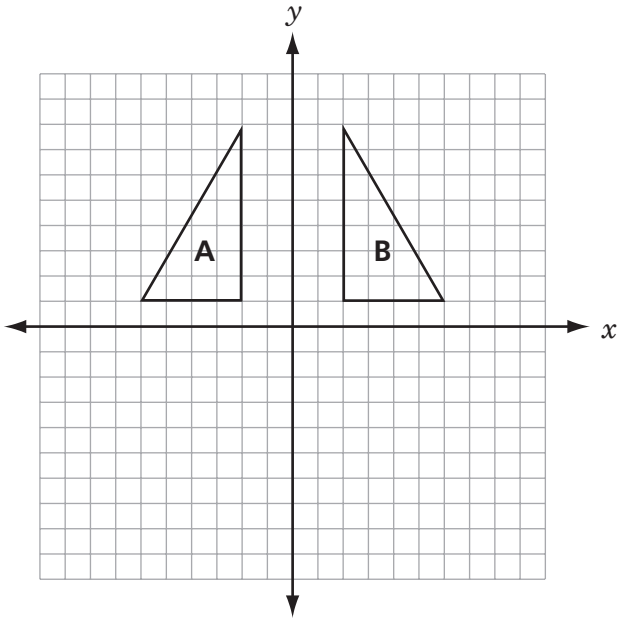
Ⓑ 150×9

Ⓒ 150×12

Ⓓ 150×27

GO ON

9 Alyssa made the design shown below.



Which transformation could be used to show that figure A is congruent to figure B?

Ⓐ add 5 to each x-coordinate

Ⓑ multiply each y-coordinate by $^{-}1$

Ⓒ multiply each x-coordinate by $^{-}1$

Ⓓ rotate the figure 90 degrees about the origin

---

10 Which shows how to find the value of x in the equation $\sqrt[3]{x} = 8$?

Ⓐ 8^3

Ⓑ 8×3

Ⓒ $\sqrt[3]{8}$

Ⓓ $8 \div 3$

GO ON

11 Which property of multiplication shows that $25 \times (4 \times 83) = (25 \times 4) \times 83$?

Ⓐ associative

Ⓑ commutative

Ⓒ distributive

Ⓓ identity

---

12 The stem and leaf plot below displays information about the number of people who attended the Saturday matinees at Oak Woods Theater for 14 weeks.

SATURDAY MATINEES
AT OAK WOODS THEATER

3	9
4	5 7 8
5	1 1 3 5 9
6	2 2
7	5 9 9

KEY
7 | 4 = 74

How many Saturdays had more than 50 people in attendance?

Ⓐ 5

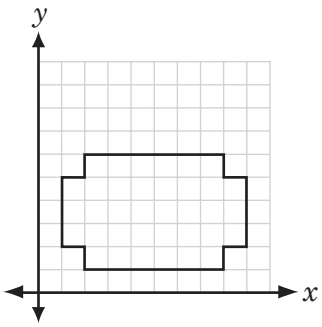
Ⓑ 7

Ⓒ 10

Ⓓ 13

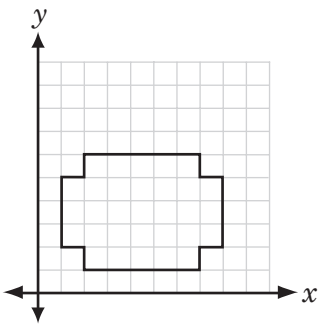
GO ON

13 A company logo contains the shape represented by the figure below.

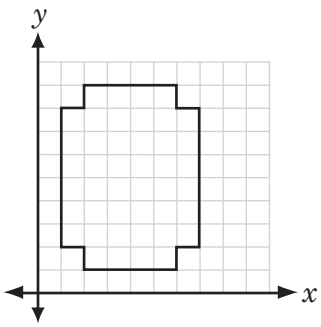


Which shape is congruent to the figure above?

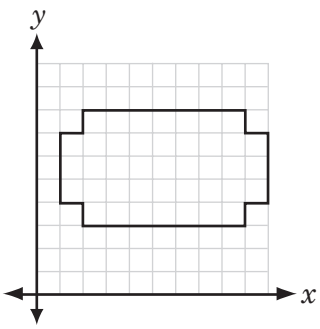
Ⓐ



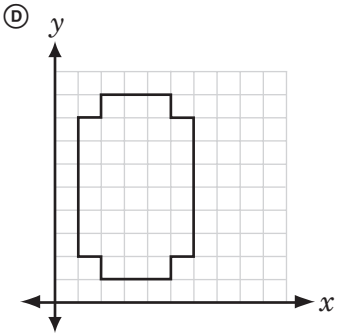
Ⓑ



Ⓒ



Ⓓ



GO ON

14 The table shows the production of chairs at a furniture factory with respect to the number of weeks from the beginning of the year. This item is worth 4 points.

CHAIR PRODUCTION

Number of Weeks	Chairs Produced
3	450
6	900
9	1,350
12	1,800
15	2,250

Write an equation in slope-intercept form ($y = mx + b$) that models the situation.

Show the work.

The pattern continues. How many weeks will it take the factory to make 5,250 chairs?

Show the work.

Answer: _____ **weeks**

GO ON

15 Which is equivalent to $3^{\frac{3}{2}} \times 3$?

Ⓐ $3^{\frac{9}{6}}$

Ⓑ $3^{\frac{5}{2}}$

Ⓒ $3^{\frac{6}{2}}$

Ⓓ $3^{\frac{9}{2}}$

---

16 What number of square meters is the same as 125 square centimeters?

Ⓐ 0.00125

Ⓑ 0.0125

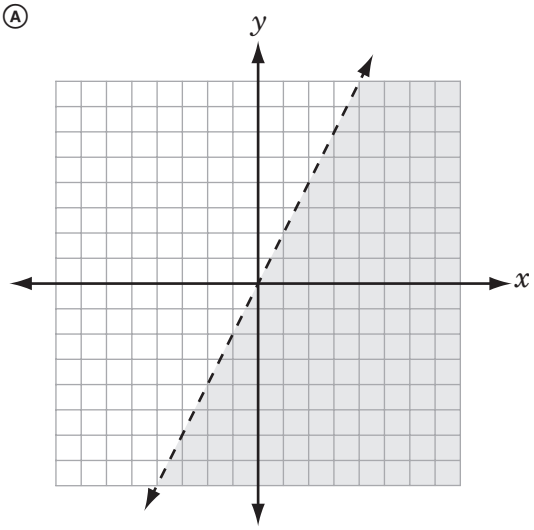
Ⓒ 0.125

Ⓓ 1.25

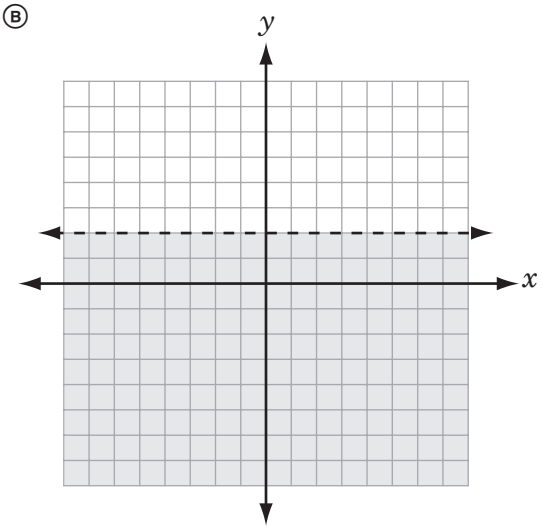
GO ON

17 Which graph represents the inequality $y < 2x$?

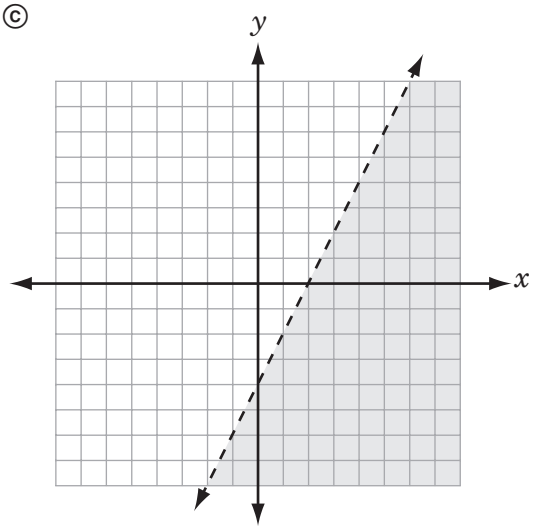
Ⓐ



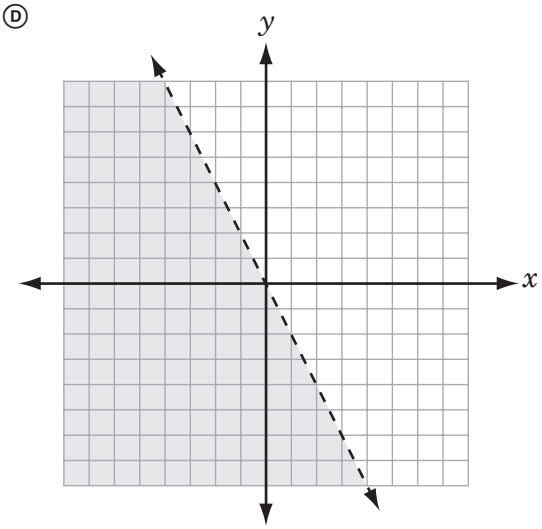
Ⓑ



Ⓒ

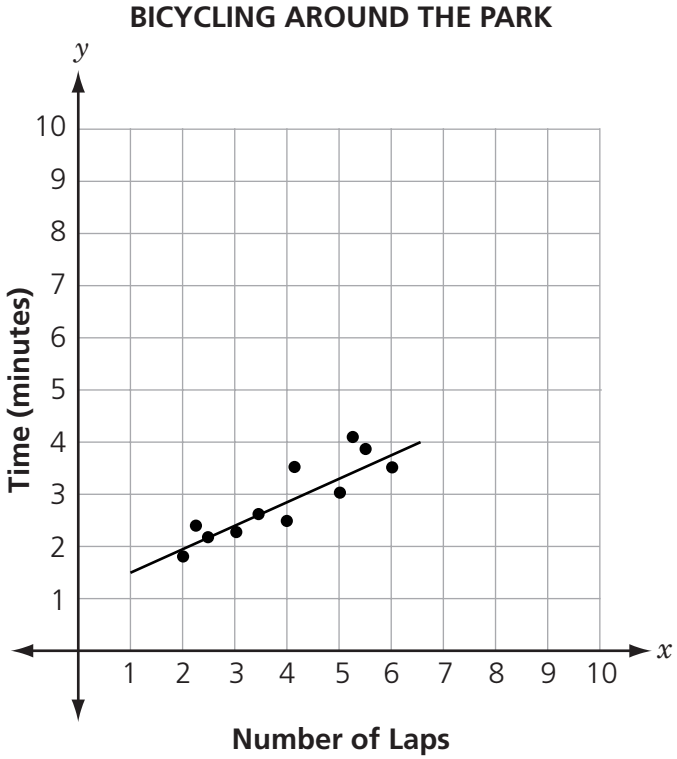


Ⓓ



GO ON

18 A group of friends recorded the time it took to ride their bikes around the park. The scatter plot below shows their results with the line of best fit.



Using the line of best fit, which is **closest** to the number of minutes it would take to complete 9 laps?

Ⓐ 4

Ⓑ 5

Ⓒ 6

Ⓓ 7

GO ON

19 A gumball machine contains 45 gumballs and 5 prizes. Vanessa puts in a coin and receives an item. She then puts in a second coin and receives another item. What is the probability that she will first get 1 gumball and then get 1 prize?

Ⓐ $\frac{1}{225}$

Ⓑ $\frac{9}{100}$

Ⓒ $\frac{9}{98}$

Ⓓ $\frac{2}{9}$

---

20 The cost of materials needed to make a sail is represented by the equation below where C is the cost and b is the length of the base of the sail.

$$C = \frac{b}{2} + 10$$

Which shows the equation solved for b?

Ⓐ $b = C + 12$

Ⓑ $b = C - 12$

Ⓒ $b = 2C - 10$

Ⓓ $b = 2C - 20$

STOP

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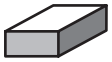
Name _____

Alaska Mathematics Standards Reference Sheet

Shape	Area	Circumference
Circle	$A = \pi r^2$	$C = \pi d = 2\pi r$
Triangle	$A = \frac{1}{2} bh$	
Rectangle	$A = lw$	
Trapezoid	$A = \frac{1}{2} h(b_1 + b_2)$	
Parallelogram	$A = bh$	

Key	
b = base	ℓ = slant height
h = height	d = diameter
l = length	r = radius
w = width	B = area of base
Use 3.14 or $\frac{22}{7}$ for π.	

Shape	Volume	Total Surface Area
Right Circular Cone	$V = \frac{1}{3} \pi r^2 h$	$SA = \frac{1}{2}(2\pi r)\ell + \pi r^2 = \pi r \ell + \pi r^2$
Square Pyramid	$V = \frac{1}{3} lwh$	$SA = 4(\frac{1}{2} l \ell) + l^2 = 2l\ell + l^2$
Sphere	$V = \frac{4}{3} \pi r^3$	$SA = 4\pi r^2$
Right Circular Cylinder	$V = \pi r^2 h$	$SA = 2\pi rh + 2\pi r^2$
 Rectangular Solid	$V = lwh$	$SA = 2(lw) + 2(hw) + 2(lh)$
Triangular Prism	$V = Bh$	

In the following formulas, n represents the number of sides:

In a polygon, the sum of the measures of the interior angles is equal to $180(n - 2)$.

In a regular polygon, the measure of an interior angle is equal to $180(n - 2) \div n$.

Alaska Mathematics Standards Reference Sheet

Formulas	
Slope-intercept form of an equation of a line, where m = slope and b = the y-intercept: $y = mx + b$	Distance between two points $P_1(x_1, y_1)$ and $P_2(x_2, y_2)$: $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
Distance, rate, time formula, where d = distance, r = rate, t = time: $d = rt$	Midpoint between two points $P_1(x_1, y_1)$ and $P_2(x_2, y_2)$: $\left(\frac{x_2 + x_1}{2}, \frac{y_2 + y_1}{2}\right)$
Simple Interest = prt where p = principal, r = rate, t = time	Quadratic formula, if $ax^2 + bx + c = 0$: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Conversions

1 yard = 3 feet = 36 inches
1 mile = 1,760 yards = 5,280 feet
1 acre = 43,560 square feet
1 hour = 60 minutes
1 minute = 60 seconds

1 liter = 1,000 milliliters = 1,000 cubic centimeters
1 meter = 100 centimeters = 1,000 millimeters
1 kilometer = 1,000 meters
1 gram = 1,000 milligrams
1 kilogram = 1,000 grams

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 pound = 16 ounces
1 ton = 2,000 pounds

1 meter = 3.28 feet
1 kilogram = 2.20 pounds

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Alaska

Writing ★ Mathematics Practice Test Book

Grade 10 SBA–HSGQE
HSGQE Retest

Form 10P01WM

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