

Student Name: \_\_\_\_\_



# Mathematics Test Booklet Grade 4

## Paper-Based Item Sampler

---

Alaska Department of Education & Early Development



Copyright © 2021 by Alaska Department of Education & Early Development. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

**DO NOT  
MARK  
ON THIS  
PAGE**

## Part 1

### Mathematics

Now you will be taking the mathematics portion of the Performance Evaluation for Alaska's Schools. This test has two parts that contain different types of questions. Record all your answers in your test booklet.

Calculators are NOT allowed on the mathematics assessment.

This test includes questions that will ask you to provide your answer in a variety of ways.

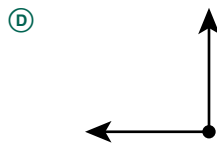
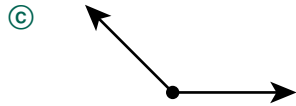
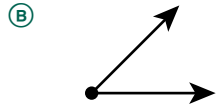
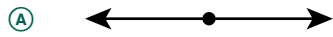
- Most questions have four answer choices and only one correct answer.
- Some questions may have more than four answer choices and more than one correct answer. You will be asked to identify all the correct answers.
- Some questions may ask you to fill in your answer to provide your response. To fill in your answer, write your answer in the boxes at the top of the grid. Only one number or symbol is allowed in each box. Write mixed numbers as improper fractions. You may start anywhere. Fill in the bubble that matches the number or symbol at the top. See the examples in the pictures.

Answer 23 is shown here.	Answer $\frac{1}{2}$ is shown here.	Answer .75 is shown here.

All questions will be answered in your test booklet ONLY. When you come to the word STOP at the end of a part, you may go back and review to check your answers. You may only review the part you just completed. You may not look at any other part in the test booklet.

Make sure you have marked all your answers clearly and that you have completely erased any marks you do not want. When you are finished, close your test booklet. Then raise your hand.

1. Which figure shows two rays that form an acute angle?



2. Which inequality is true?

(A)  $\frac{2}{5} < \frac{2}{10}$

(B)  $\frac{3}{5} < \frac{3}{10}$

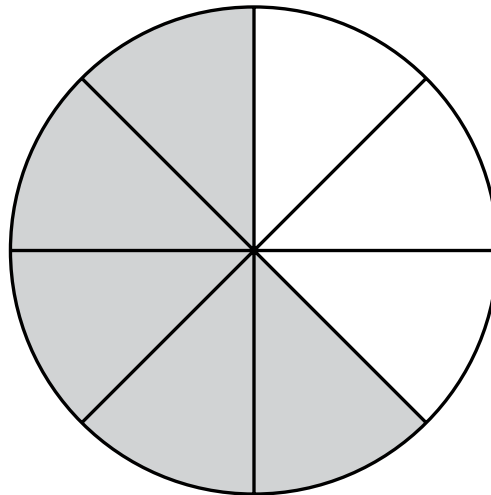
(C)  $\frac{2}{5} < \frac{5}{10}$

(D)  $\frac{3}{5} < \frac{5}{10}$

3. Lucas spent 3 hours working on his homework. How many **minutes** did he spend working on his homework?

- (A) 3
- (B) 60
- (C) 120
- (D) 180

4. Molly has  $\frac{5}{8}$  of a pie left over on Monday, as shown.



On Tuesday, Molly ate  $\frac{2}{8}$  of the whole pie. What fraction of the whole pie is left over on Wednesday?

- (A)  $\frac{2}{8}$
- (B)  $\frac{3}{8}$
- (C)  $\frac{4}{8}$
- (D)  $\frac{7}{8}$

5. A rectangle with three equal parts is shown. The rectangle has shading that represents a fraction.



Which rectangle has shading that represents the same fraction?

(A)



(B)



(C)



(D)



6. There are 4,559 fans at a baseball game. Which statement correctly compares the value of the digit in the hundreds place and the value of the digit in the tens place?
- (A) The value of the 5 in the hundreds place is five times the value of the 5 in the tens place.
  - (B) The value of the 5 in the hundreds place is ten times the value of the 5 in the tens place.
  - (C) The value of the 5 in the tens place is ten times the value of the 5 in the hundreds place.
  - (D) The value of the 5 in the tens place is the same as the value of the 5 in the hundreds place.

7. A cookie recipe uses  $\frac{2}{3}$  cup of sugar for one batch. How many cups of sugar are needed for 7 batches?

Ⓐ  $\frac{2}{21}$

Ⓑ  $\frac{14}{21}$

Ⓒ  $4\frac{2}{3}$

Ⓓ  $7\frac{2}{3}$

8. Which number is 56 a multiple of?

Ⓐ 5

Ⓑ 6

Ⓒ 7

Ⓓ 9



## Part 2

### Mathematics

Now you will be taking the mathematics portion of the Performance Evaluation for Alaska's Schools. This test has two parts that contain different types of questions. Record all your answers in your test booklet.

Calculators are NOT allowed on the mathematics assessment.

This test includes questions that will ask you to provide your answer in a variety of ways.

- Most questions have four answer choices and only one correct answer.
- Some questions may have more than four answer choices and more than one correct answer. You will be asked to identify all the correct answers.
- Some questions may ask you to fill in your answer to provide your response. To fill in your answer, write your answer in the boxes at the top of the grid. Only one number or symbol is allowed in each box. Write mixed numbers as improper fractions. You may start anywhere. Fill in the bubble that matches the number or symbol at the top. See the examples in the pictures.

Answer 23 is shown here.	Answer $\frac{1}{2}$ is shown here.	Answer .75 is shown here.

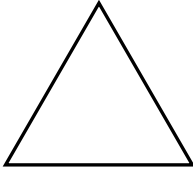
All questions will be answered in your test booklet ONLY. When you come to the word STOP at the end of a part, you may go back and review to check your answers. You may only review the part you just completed. You may not look at any other part in the test booklet.

Make sure you have marked all your answers clearly and that you have completely erased any marks you do not want. When you are finished, close your test booklet. Then raise your hand.

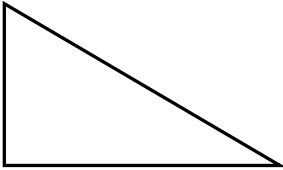


9. Margaret drew a right triangle. Which figure could be the shape Margaret drew?

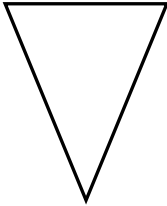
Ⓐ



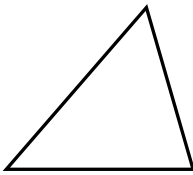
Ⓑ



Ⓒ



Ⓓ



10. What is the value of  $\frac{7}{10} + \frac{23}{100}$ ?

(A)  $\frac{30}{110}$

(B)  $\frac{30}{100}$

(C)  $\frac{93}{110}$

(D)  $\frac{93}{100}$

11. Ryan invited 60 people to a party, but 15 people did not come. All the people that came to the party sat at 5 different tables. Each table had the same number of people. How many people sat at each table?

(A) 3

(B) 9

(C) 12

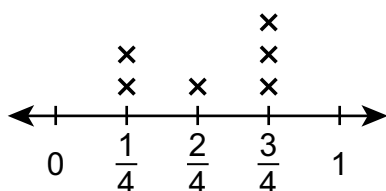
(D) 15

12. Jordan plays drums each day for 6 days. The amounts of time, in hours, he plays each day are shown.

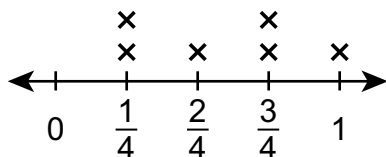
$$\frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{1}{4}, \frac{3}{4}, \frac{3}{4}$$

Which line plot shows the amounts of time, in hours, Jordan plays drums each day?

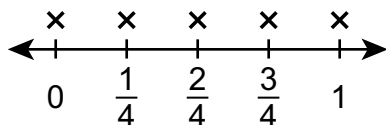
(A)



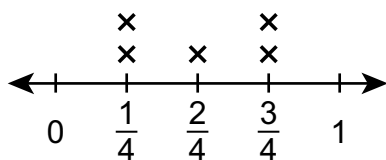
(B)



(C)



(D)



13. Lindsay sold 5 raffle tickets at the school fair. Kirstin sold 4 times as many raffle tickets as Lindsay sold. How many raffle tickets, in total, did Kirstin sell?

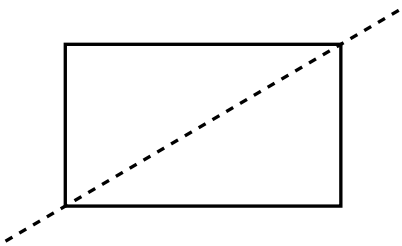
- (A) 4  
(B) 5  
(C) 20  
(D) 25

14. When rounded to the nearest hundred, which number is 6,300?

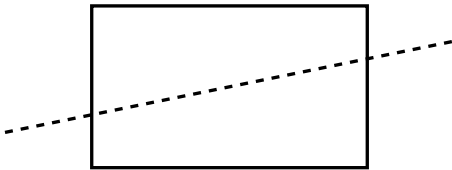
- Ⓐ 6,000
- Ⓑ 6,249
- Ⓒ 6,251
- Ⓓ 6,389

15. Which rectangle shows a line of symmetry?

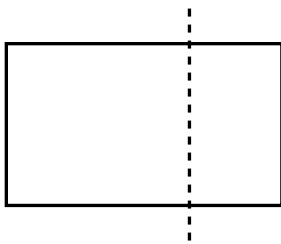
Ⓐ



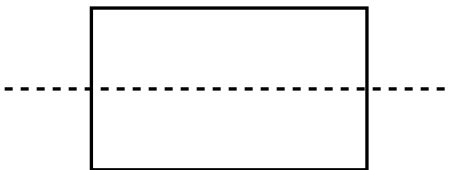
Ⓑ



Ⓒ



Ⓓ



16. Which statement matches the equation  $27 = 9 \times 3$ ?

- (A) 27 is 9 times as many as 3.
- (B) 27 is 9 more than 3.
- (C) 9 is 3 more than 27.
- (D) 3 is 27 times as many as 9.

17. What is the value of  $20,000 + 5,000 + 700 + 30 + 4$ ?

Enter your answer in the gridded response area.

	/	/	/	
.	.	.	.	.
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9





PERFORMANCE EVALUATION  
FOR ALASKA'S SCHOOLS

**Mathematics**  
**Test Booklet**  
**Grade 4**  
**Paper-Based Item Sampler**