

2025 MCAS Sample Student Work and Scoring Guide

Grade 3 Mathematics

Question 7: Constructed-Response

Reporting Category: Number and Operations—Fractions

Standard: [3.NF.A.2](#) - Understand a fraction as a number on the number line; represent fractions on a number line diagram.

Item Description: Plot a point to show the location of a fraction on a given partitioned number line, write the fraction that represents a point on a partitioned number line, and use a number line to explain if a fraction greater than 1 is greater than a given whole number.

Calculator: Not allowed

This item can be found in the released item sets on the [MCAS Resource Center](#).

Scoring Guide

Select a score point in the table below to view the sample student response.

Score*	Description
3A	The student response demonstrates an exemplary understanding of the Number & Operations—Fractions concepts involved in understanding a fraction as a number on the number line and representing fractions on a number line diagram. The student correctly identifies and represents fractions on number line diagrams and determines the size of a given fraction.
3B	
2	The student response demonstrates a good understanding of the Number & Operations—Fractions concepts involved in understanding a fraction as a number on the number line and representing fractions on a number line diagram. Although there is significant evidence that the student was able to recognize and apply the concepts involved, some aspect of the response is flawed. As a result, the response merits 2 points.
1	The student response demonstrates a minimal understanding of the Number & Operations—Fractions concepts involved in understanding a fraction as a number on the number line and representing fractions on a number line diagram. While some aspects of the task are completed correctly, others are not. The mixed evidence provided by the student merits 1 point.
0	The student response contains insufficient evidence of an understanding of the Number & Operations—Fractions concepts involved in understanding a fraction as a number on the number line and representing fractions on a number line diagram. As a result, the response does not merit any points.

*Letters are used to distinguish between sample student responses that earned the same score (e.g., 3A and 3B).

Score Point 3A

This question has three parts.

Addison ran a practice lap and then went for a long run.

Part A

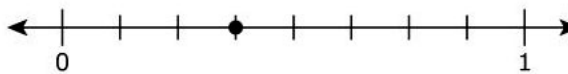
Addison ran a distance of $\frac{1}{8}$ mile on her practice lap.

On this number line, plot the point that represents the location of the distance, in miles, Addison ran during her practice lap.

Select a place on the number line to plot the point.

**Part B**

The point on this number line represents the location of the distance, in miles, Addison ran in the first part of her **long run**.



What fraction of a mile did Addison run in the first part of her long run? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

The fraction is $\frac{3}{8}$ because the dot in the number line is in the third place of the number line.

Part C

Addison ran for a total of $2\frac{1}{4}$ miles on her long run.

Did Addison run more than 2 miles on her long run? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

yes because she ran $2\frac{1}{4}$ miles I know this because the fraction is $\frac{9}{4}$ so she ran 2 miles and that would leave $\frac{1}{4}$ behind so she ran more than 2 miles.

Score Point 3B

This question has three parts.

Addison ran a practice lap and then went for a long run.

Part A

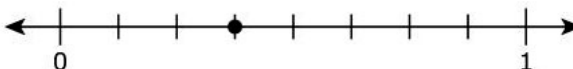
Addison ran a distance of $\frac{1}{8}$ mile on her practice lap.

On this number line, plot the point that represents the location of the distance, in miles, Addison ran during her practice lap.

Select a place on the number line to plot the point.

**Part B**

The point on this number line represents the location of the distance, in miles, Addison ran in the first part of her **long run**.



What fraction of a mile did Addison run in the first part of her long run? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

$\frac{3}{8}$ because first I counted the jumps and it was 8 so I put an eight at the bottom and the point is on the third one and I put it on the top.

Part C

Addison ran for a total of $\frac{9}{4}$ miles on her long run.

Did Addison run more than 2 miles on her long run? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Yes because $\frac{4}{4} = 1$ and $\frac{8}{4} = 2$ and $\frac{9}{4} > \frac{8}{4}$ and $\frac{8}{4} = 2$ so Addison runs more than 2 miles.

Score Point 2

This question has three parts.

Addison ran a practice lap and then went for a long run.

Part A

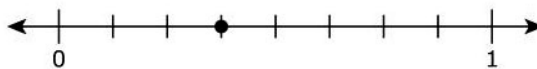
Addison ran a distance of $\frac{1}{8}$ mile on her practice lap.

On this number line, plot the point that represents the location of the distance, in miles, Addison ran during her practice lap.

Select a place on the number line to plot the point.

**Part B**

The point on this number line represents the location of the distance, in miles, Addison ran in the first part of her **long run**.



What fraction of a mile did Addison run in the first part of her long run? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

Thinking: there are 9 marks and the fourth mark is the one with the point so Addison ran $\frac{4}{9}$ of a mile.

Answer: Addison ran $\frac{4}{9}$ of a mile.

Part C

Addison ran for a total of $\frac{9}{4}$ miles on her long run.

Did Addison run more than 2 miles on her long run? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Addison ran more than 2 miles because $\frac{8}{4} = 2$

and $\frac{9}{4} > \frac{8}{4}$

Score Point 1

This question has three parts.

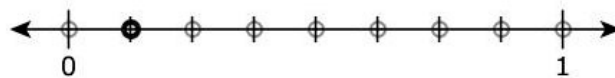
Addison ran a practice lap and then went for a long run.

Part A

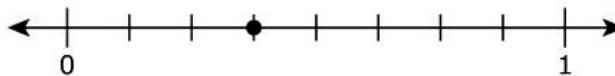
Addison ran a distance of $\frac{1}{8}$ mile on her practice lap.

On this number line, plot the point that represents the location of the distance, in miles, Addison ran during her practice lap.

Select a place on the number line to plot the point.

**Part B**

The point on this number line represents the location of the distance, in miles, Addison ran in the first part of her **long run**.



What fraction of a mile did Addison run in the first part of her long run? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

3 miles i got that answer by counting

Part C

Addison ran for a total of $\frac{9}{4}$ miles on her long run.

Did Addison run more than 2 miles on her long run? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

yes becuse 9 is more than 2

Score Point 0

This question has three parts.

Addison ran a practice lap and then went for a long run.

Part A

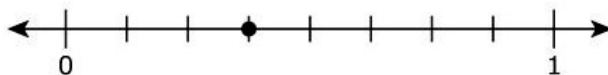
Addison ran a distance of $\frac{1}{8}$ mile on her practice lap.

On this number line, plot the point that represents the location of the distance, in miles, Addison ran during her practice lap.

Select a place on the number line to plot the point.

**Part B**

The point on this number line represents the location of the distance, in miles, Addison ran in the first part of her **long run**.



What fraction of a mile did Addison run in the first part of her long run? Explain how you got your answer.

Enter your answer and your explanation in the space provided.

Addison ran $\frac{4}{9}$ the first day because there is nine parts and the dot is on the fourth.

Part C

Addison ran for a total of $\frac{9}{4}$ miles on her long run.

Did Addison run more than 2 miles on her long run? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

yes because the first run was $\frac{4}{9}$ and now the numbers are switched around so see ran a lot more.