

Math Training Guide

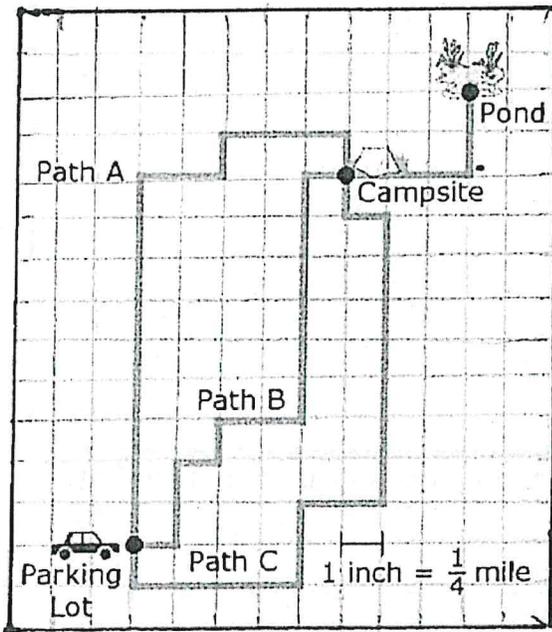
Grade 7

Performance Task

Please read the 7th grade performance task below. Take a minute to answer the questions. A calculator is allowed for all parts of the performance task. Note which items are to be hand scored.

Camping Tasks

You are going on a camping trip with your friend Chris. A map with three different paths from the parking lot to the campsite is shown.



The map uses a scale of 1 inch = $\frac{1}{4}$ mile.

Question #1 (Computer Scored)

What is the distance, in miles, from the campsite to the pond along the path?

7	8	9	÷	
4	5	6	×	
1	2	3	-	
0	.	=	+	

Question #2 (Computer Scored)

Chris claims that Path A is 2 miles longer than Path B. What calculation error might Chris have made? What is the correct comparison of the length of Path A to the length of Path B?

B
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U
~~I~~
☰
☷
☰
☷
✂
📄
📄
↶
↷
ABC
Ω

Practice grading Question #2. Score independently using rubric [in answer key].

Student Response	Score
<p>Student Response:</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> the calculation error that Chris might have made is that he counted all of the squares of each path and not read the key. So for example path A does have two squares more than path B but not two miles. Pth A has 16 squares and path B has 14 but the real calculation of miles for path A is 4 miles and for path B it is 3 and 1/2 mile. For every 1 inch that equals 1/4 mile so to get one mile you have to count 4 inches. </div>	
<div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> the error chris made is that he added the numbes of the paths the length of path a is 4 miles and path b is 3.5 miles which means a is a half mile longer than path b </div>	
<div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> Chris probably added a few more blocks than there should have been.the correct comparison of the lenght of the different paths ls that path A is longer by two inches than path B </div>	
<div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> he calculated in w holes not fourths </div>	

Math Training Guide Answer Key
Grade 7

Performance Task

Question #1 (Computer Scored)

1.25 miles or an equivalent value

Question #2 (Hand Scored)

Rubric:

2 points:

Response includes the following:

- identifying Chris's error (1 point)

AND

- an explanation of the correct comparison (1 point)

Sample response (2 points):

Chris counted each grid square as 1 mile instead of counting the squares.

Path A is actually 2 grid squares or $\frac{1}{2}$ mile longer than Path B.

1 point:

Response includes one of the following:

- only identifying Chris's error

OR

- only giving the correct comparison

Sample response (1 point):

Chris counted the grid squares.

0 points:

The student has demonstrated merely an acquaintance with the topic, or a completely incorrect or uninterpretable response. The student's response may be associated with the task in the item but contains few attributes of an appropriate response. There are significant omissions or irregularities that indicate a lack of comprehension in regard to the mathematical content and practices essential to this task. No evidence is present that demonstrates the student's competence in problem solving, reasoning, and/or modeling related to the specified task.

Scores

Student Response	Score
<p>Student Response:</p> <p>the calculation error that Chris might have made is that he counted all of the squares of each path and not read the key. So for example path A does have two squares more than path B but not two miles. Pth A has 16 squares and path B has 14 but the real calculation of miles for path A is 4 miles and for path B it is 3 and 1/2 mile. For every 1 inch that equals 1/4 mile so to get one mile you have to count 4 inches.</p>	2
<p>the error chris made is that he added the numbes of the paths the length of path a is 4 miles and path b is 3.5 miles which means a is a half mile longer than path b</p>	1
<p>Chris probably added a few more blocks than there should have been. the correct comparison of the lenght of the different paths is that path A is longer by two inches than path B</p>	1
<p>he calculated in w holes not fourths</p>	0

Question #3 (Computer Scored)

Complete the table to show the actual distance, in miles.

Path	Distance (miles)
A	4
B	3.5
C	4.5

Question #4 (Computer Scored)

Path	Distance (miles)	Time (minutes)	Walking Rate (mph)
A	0.5	12	2.5
B	1.5	45	2
C	0.75	15	3

Question #5 (Hand Scored)

2 point text

Response includes the following:

- identifying the correct path (1 point)

AND

- an explanation to support the choice based on total time (1 point)

Other correct responses:

- identifying the correct path based on the distances determined in item 4 and the rates determined in item 5.

1 point text

Response includes one of the following:

- identifying the correct path with incorrect or missing information about the total amount of time.

1 point sample answer

Path C would be the best choice. Path C is the longest path (4.5 miles OR <item 3 response C>) but has the fastest walking rate (3 mph OR <item 5 response C>).

0 point text

The student has demonstrated merely an acquaintance with the topic, or a completely incorrect or uninterpretable response. The student's response may be associated with the task in the item but contains few attributes of an appropriate response. There are significant omissions or irregularities that indicate a lack of comprehension in regard to the mathematical content and practices essential to this task. No evidence is present that demonstrates the student's competence in problem solving, reasoning, and/or modeling related to the specified task.

Graded based on response to part
4 and 5

Math

Facilitator answer key for Part 3

<p>Student Response:</p> <p>thte calculation error that Chris might have made is that he counted all of the squares of each path and not read the key. So for example path A does have two squares more than path B but not two miles. Pth A has 16 squares and path B has 14 but the real calculation of miles for path A is 4 miles and for path B it is 3 and 1/2 mile. For every 1 inch that equals 1/4 mile so to get one mile you have to count 4 inches.</p> <p>Comments:</p> <p>This response both correctly identifies Chris's error (...thte calculation error that Chris might have made is that he counted all of the squares of each path and not read the key) and explains the correct comparison of the paths' lengths (...the real calculation of miles for path A is 4 miles and for path B it is 3 and 1/2 mile).</p> <p>P-1</p>	2
<p>Student Response:</p> <p>the error chris made is that he added the numbes of the paths the length of path a is 4 miles and path b is 3.5 miles which means a is a half mile longer than path b</p> <p>Comments:</p> <p>This response explains the correct comparison of the paths' lengths (...the length of path a is 4 miles and path b is 3.5 miles which means a is a half mile longer than path b), but incorrectly identifies Chris's error (the error chris made is that he added the numbes of the paths...).</p> <p>P-4</p>	1
<p>Student Response:</p> <p>Chris probably added a few more blocks than there should have been.the correct comparison of the lenght of the different paths is that path A is longer by two inches than path B</p> <p>Comments:</p> <p>This response incorrectly identifies Chris's error (Chris probably added a few more blocks than there should have been). The response attempts an explanation of the comparison of the paths' lengths (... path A is longer by two inches than path B), but does not demonstrate any understanding of how the paths' lengths compare in terms of miles.</p> <p>P-7</p>	1
<p>Student Response:</p> <p>he calculated in w holes not fourths</p> <p>Comments:</p> <p>This response correctly identifies Chris's error (he calculated in w holes not fourths), but fails to provide an explanation of the correct comparison of the paths' lengths.</p> <p>P-6</p>	0

