Sample 3

May 6, 2013

1)

Park A $m = \frac{\text{rise}}{\text{run}} = \frac{6}{10} = \frac{3}{5}$

Park B $m = \frac{\text{rise}}{\text{run}} = \frac{6}{6} = 1$

Criterion 1 - Yes
(See note in rubric)

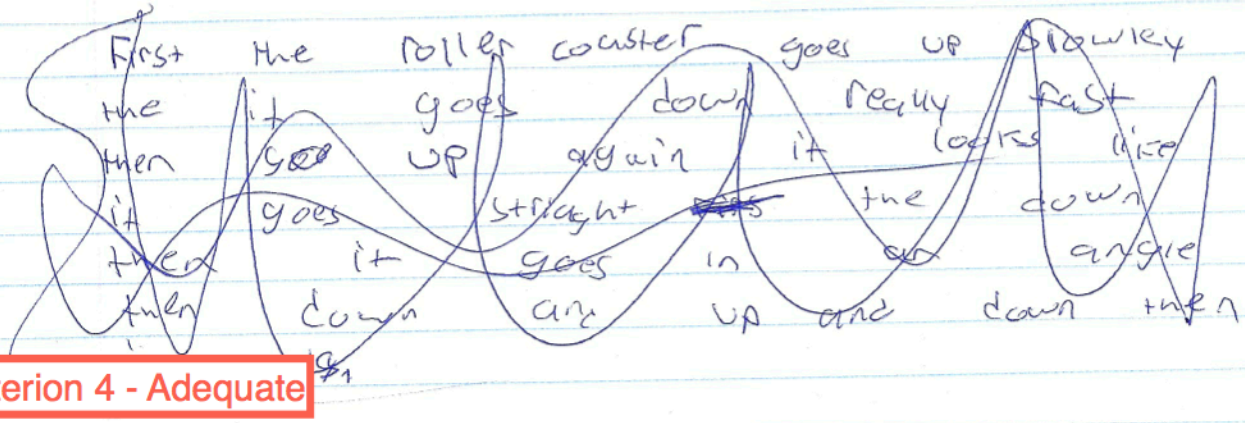
Park C $m = \frac{\text{rise}}{\text{run}} = \frac{8}{3}$

2. The slope of these section effects the speed of roller coaster in those section because park A goes more smoother while park B and C are really steeps

Criterion 2 - Proficient

3. I would like park C because it ~~goes~~ looks like it can go fast,

Criterion 3 - Adequate



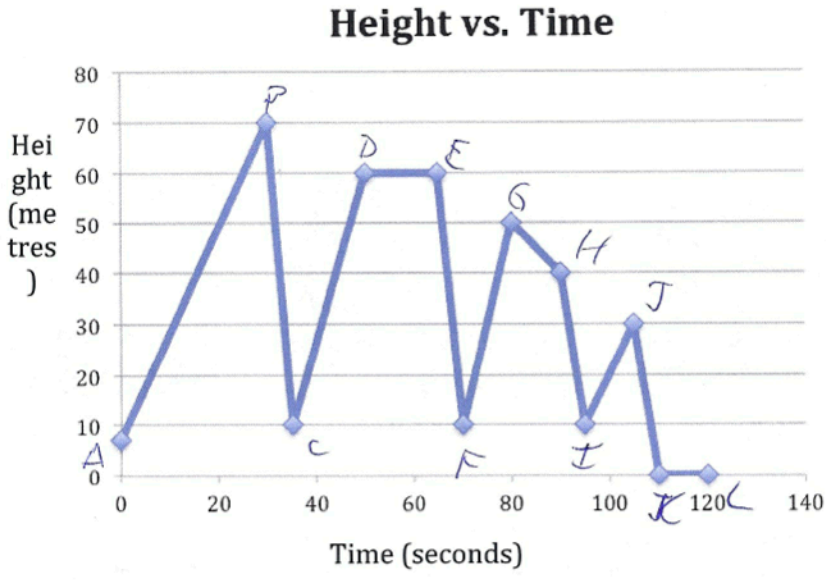
Criterion 4 - Adequate

From a to b it goes from 10 to 70
then from B to C it goes down
the C to D it from 10 to 60 then
its straight from D to E then
from F to G it goes 10 to 50
then G and H it it goes on a slant 50 to 40
the H to I is ~~40~~ the J to K is 30 0 the it ends

Math 20-3
Performance Assessment Task

Which Roller Coaster is For Me?

While conducting further research, you discover that some amusement parks provide height-time graphs of their roller coaster rides. The graph below represents the height vs. time of a roller coaster at a different amusement park.



- Describe the experience of riding this roller coaster. Write a description of what a rider experiences on this roller coaster in each segment. Explain how the slope of each section affects the experience of the rider.

Math 20-3
Performance Assessment: Rubric

Which Roller Coaster is For Me?

Student Sample 3 **Date** _____

Criteria	Description of Criteria	Yes	Not Yet	Teacher Comment
Determine slope (Algebra 2) [C, CN, PS, V]	The student has correctly calculated the slopes of the given roller coasters.	✔		This student seems to understand that slope is rise over run, but has made two counting errors on the grid. The teacher should encourage this student to correct the work.

Criteria \ Level	4 Excellent	3 Proficient	2 Adequate	1 Limited *	Insufficient/ Blank *
Explain the implication of slope on the roller coaster's speed (Algebra 2) [C, CN, PS, V]	Explains the effect of slope on the speed in an **astute** manner.	Explains the effect of slope on the speed in a **credible** manner. The student indicates that the slope affects the speed, but doesn't elaborate how the slope affects speed. When the student eventually suggests that Park C's is probably the fastest, this category likely moves from Adequate to Proficient.	Explains the effect of slope on the speed in a **simplistic** manner.	Explains the effect of slope on the speed in an **inaccurate** manner.	No score is awarded because there is insufficient evidence of student performance based on the requirements of the assessment task.
Justify choice of roller coaster (Algebra 2) [C, CN, PS, V]	Justifies choice in a **compelling** manner.	Justifies choice in an **interesting** manner.	Justifies choice in a **predictable** manner. The student should provide more detail here. Why pick the fast one?	Justifies choice in an **ineffective** manner.	
Describe a graphical representation in terms of slope (Algebra 2) [C, CN, PS, V]	Provides an **explicit** explanation of what the rider experiences in each segment.	Provides a **logical** explanation of what the rider experiences in each segment.	Provides a **simplistic** explanation of what the rider experiences in each segment. The student broke the graph into sections, but didn't talk about the speed or the rider's experience in those sections.	Provides a **flawed** explanation of what the rider experiences in each segment.	