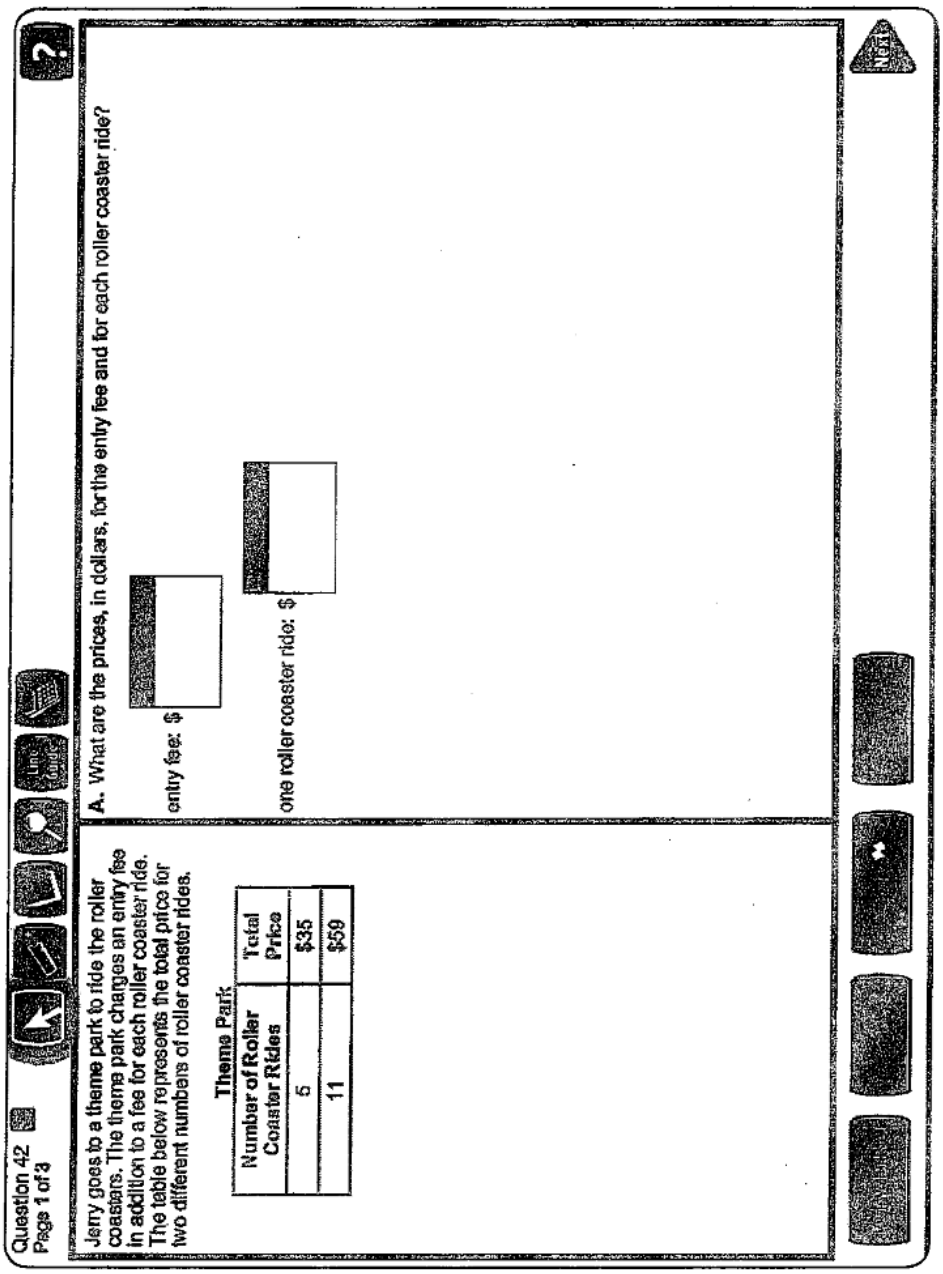
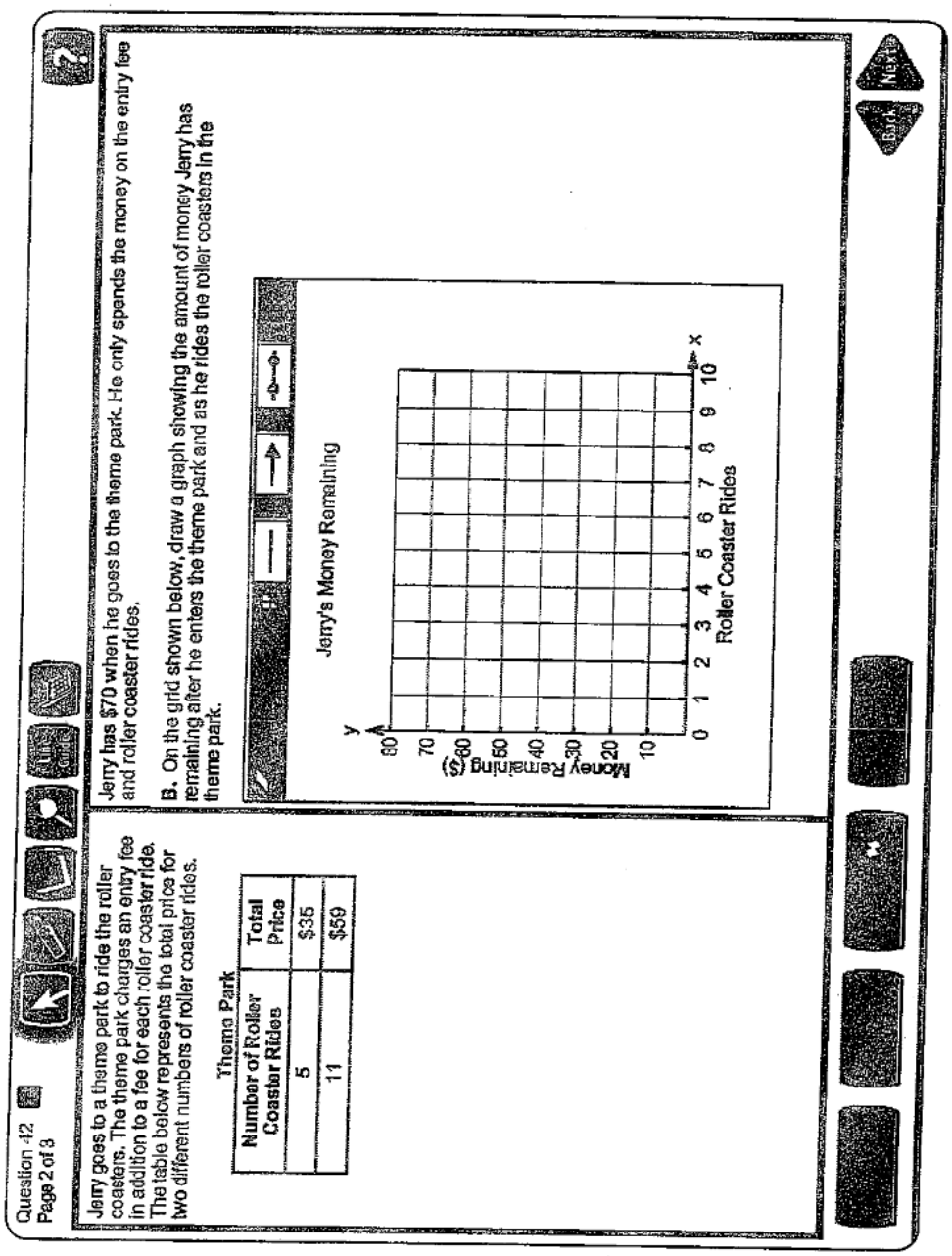
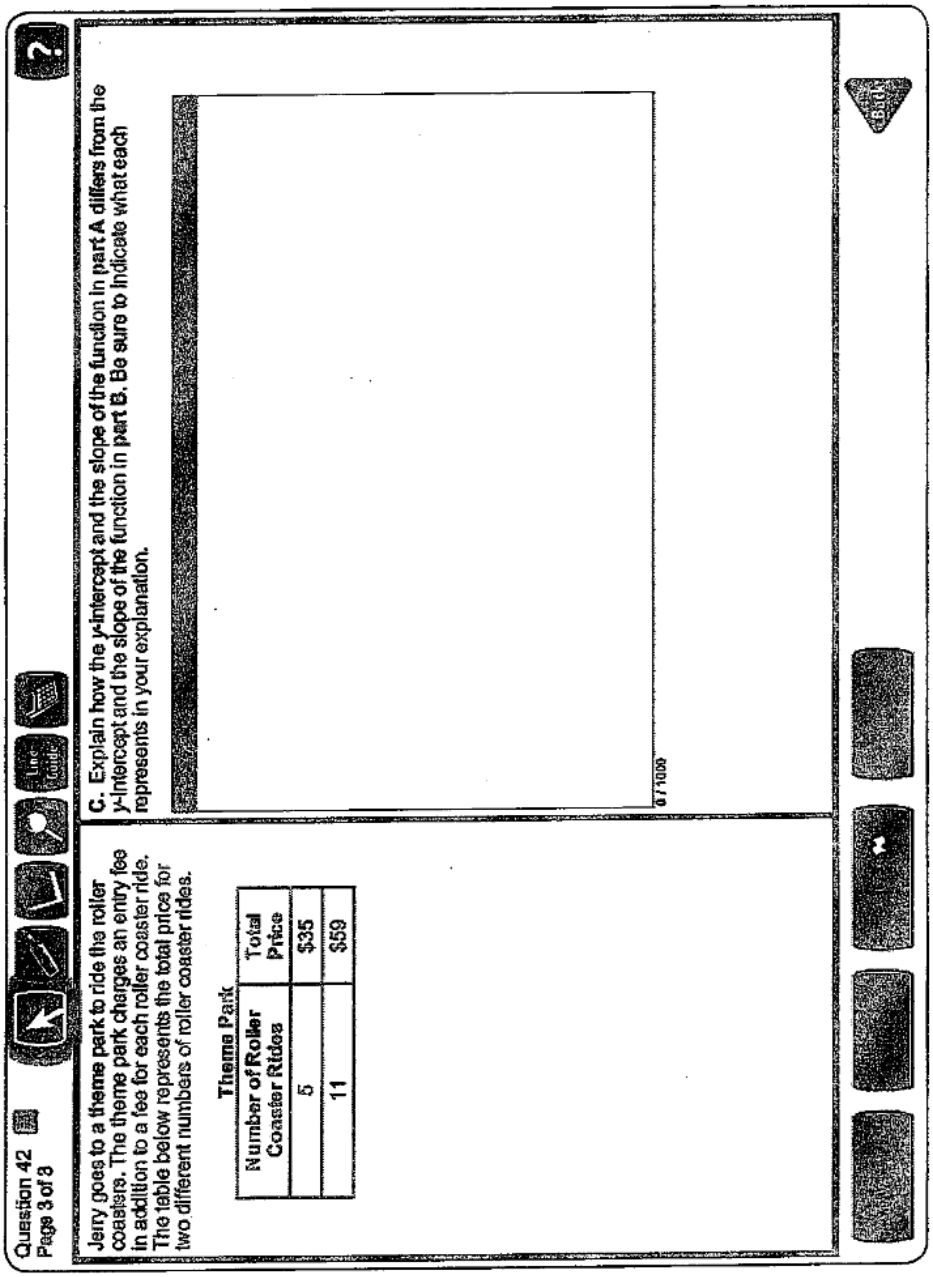
SECOND OPEN-ENDED QUESTION

B-F.2.1.1
B-F.2.1.2




Question 42
Page 2 of 3
Jerry goes to a theme park to ride the roller coasters. The theme park charges an entry fee in addition to a fee for each roller coaster ride. The table below represents the total price for two different numbers of roller coaster rides.
Theme Park
Number of Roller Coaster Rides
Total Price
5
$35
11
$59
Jerry has $70 when he goes to the theme park. He only spends the money on the entry fee and roller coaster rides.
B. On the grid shown below, draw a graph showing the amount of money Jerry has remaining after he enters the theme park and as he rides the roller coasters in the theme park.
Jerry's Money Remaining
Money Remaining ($)
Roller Coaster Rides
Back
Next

PSSA MATHEMATICS

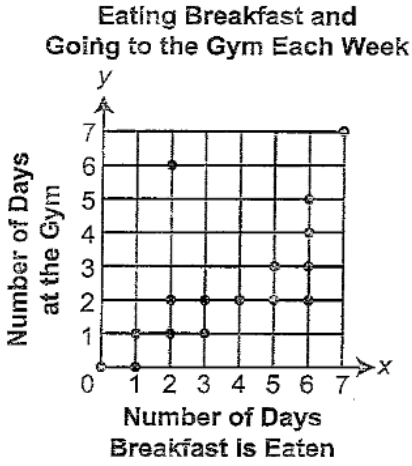


PSSA Grade 8 Mathematics Preliminary Item and Scoring Sampler—August 2014 60

THIRD OPEN-ENDED QUESTION

D-S.1.1.1
D-S.1.1.2

43. The scatter plot below shows the results of a survey of 16 people. They were asked how many days per week they eat breakfast and how many days per week they go to the gym.



A. What are the coordinates of the point that is the outlier of the data? Explain what the point represents.

Go to the next page to finish question 43.

43. ***Continued.*** Please refer to the previous page for task explanation.

Jeff drew a line through (0, 0) and (7, 7) and said it was the line of best fit for the data.

B. Explain why Jeff's line is **not** a line of best fit.

C. How does the actual line of best fit compare with Jeff's line?

FIRST OPEN-ENDED QUESTION

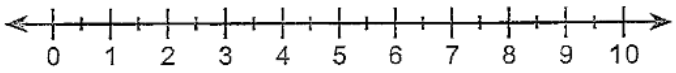
A-N.1.1.1
A-N.1.1.3
A-N.1.1.5

41. Kelsey draws a series of right triangles with sides that have the lengths shown in the table below.

Lengths of Sides of Kelsey's Right Triangles (inches)

Triangle	Length of First Leg	Length of Second Leg	Length of Hypotenuse
A	1	1	$\sqrt{2}$
B	1	2	$\sqrt{5}$
C	1	3	$\sqrt{10}$
D	1	4	$\sqrt{17}$
E	1	5	$\sqrt{26}$

A. Plot and label each of the five hypotenuse lengths on the number line shown below.



The next hypotenuse in the pattern is $\sqrt{37}$. Kelsey plots $\sqrt{37}$ on a number line without the use of a calculator.

B. Explain how Kelsey could find between which two consecutive whole numbers she should plot $\sqrt{37}$. Also explain how she can determine to which of these two whole numbers $\sqrt{37}$ is closest.

Go to the next page to finish question 41.

41. ***Continued.*** Please refer to the previous page for task explanation.

Kelsey continues making right triangles following the same pattern she used to make the first five right triangles.

C. Explain why none of the right triangles Kelsey makes will have a hypotenuse with a rational number length.