

Tennessee Comprehensive Assessment Program

# TCAP/CRA 2013



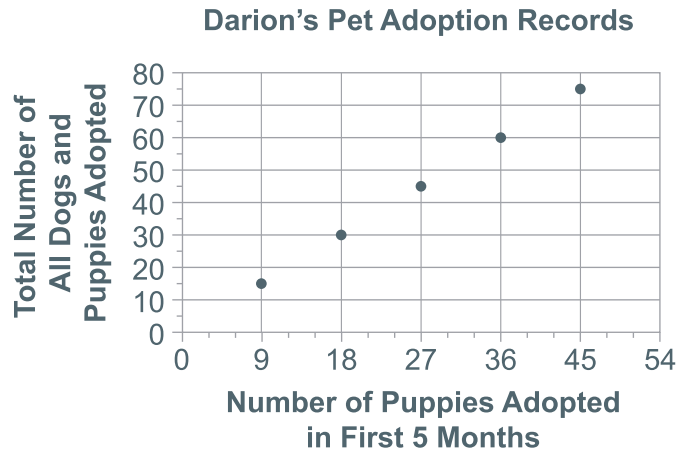
# 7

## Task 1      Scoring Guide

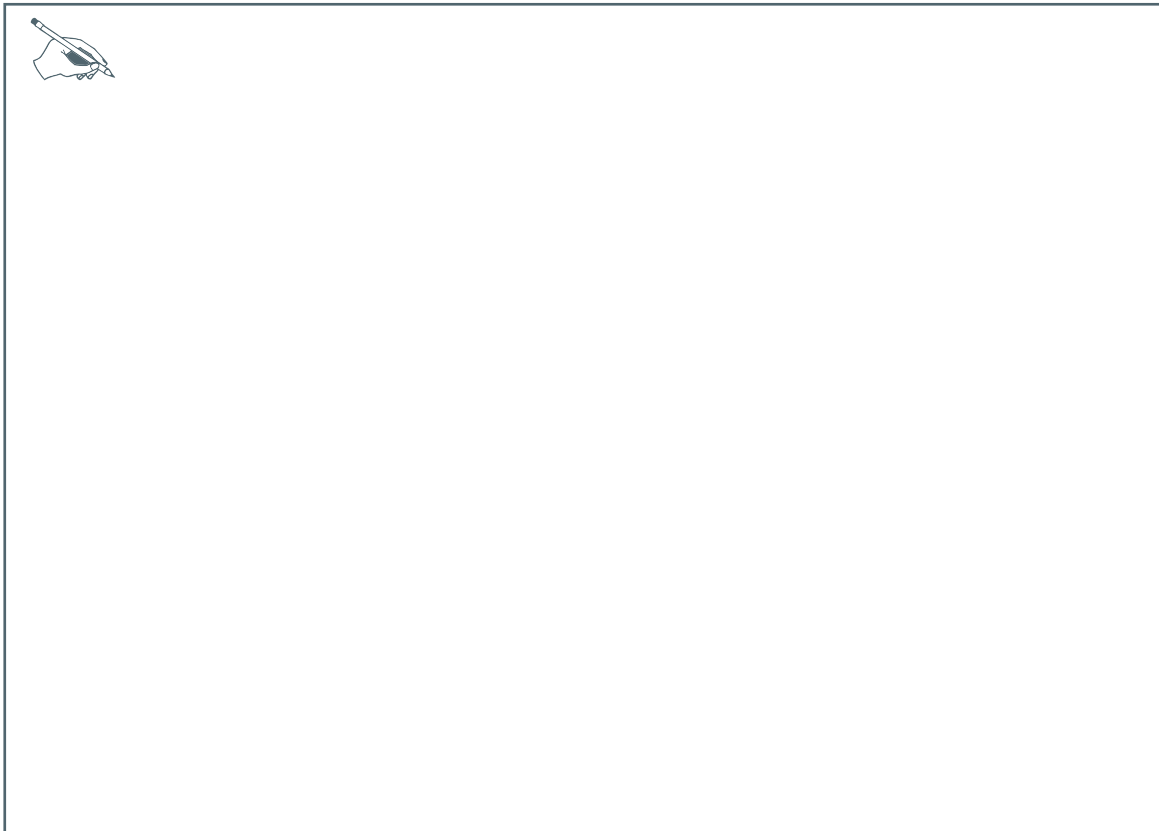
Pet Adoptions Task

### Task 1. Pet Adoptions Task


Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.




- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

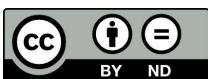


A large rectangular box for writing the answer to question b. In the top-left corner, there is a small icon of a hand holding a pen, indicating where to start writing.

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.



A large rectangular box for writing the answer to question c. In the top-left corner, there is a small icon of a hand holding a pen, indicating where to start writing.



PLEASE DO NOT WRITE IN THIS AREA



## 1. Pet Adoptions Task Scoring Guide

### The CCSS for Mathematical Content (2 points)

7.RP.A.2a Explains how to use the points on the graph to test for proportionality in any of the following ways: \_\_\_\_\_

- stating that because the points fall on a straight line that passes through the origin, the relationship is proportional.
- dividing, e.g., 15 dogs adopted divided by 9 puppies adopted is 1.6, or 9 puppies adopted divided by 15 dogs adopted is 0.6; the quotient is the same for all coordinate pairs divided the same way.
- representing the coordinate pairs as ratios in equivalent fraction form:  
$$\frac{9 \text{ puppies adopted}}{15 \text{ dogs adopted}} = \frac{18 \text{ puppies adopted}}{30 \text{ dogs adopted}} = \frac{27 \text{ puppies adopted}}{45 \text{ dogs adopted}}$$
$$= \frac{36 \text{ puppies adopted}}{60 \text{ dogs adopted}}.$$
- creating a table from the points given in the graph, noting that when read vertically, each row is a multiple or iteration of another row or sum of rows; i.e., as the puppies adopted doubles (triples, halves, etc.), the total number of dogs adopted doubles (triples, halves, etc.).

**(1 Point)**

7.RP.A.3 Finds discounted cost of adopting a dog in any of the following ways: \_\_\_\_\_

- finding 20% of 38 by multiplying; i.e.,  $0.2 \times 38 = 7.6$ , and subtracting that amount from \$38.
- using ratios or proportions; e.g.  $\frac{20}{100} = \frac{x}{38}$  and subtracting  $x$  from \$38.
- setting up and solving the equation  $x \div 38 = 0.20$  and subtracting  $x$  from \$38.
- recognizing that 80% of the cost will give the answer and using a correct method to determine 80% of \$38.

**(1 Point)**

**Total Content Points** \_\_\_\_\_

**The CCSS for Mathematical Practice (3 points)**

MP3 Provides a logical argument that all of the points on the graph represent the same percent using ratios, a graph, or a table. May show that the percent represented by each coordinate pair is the same. \_\_\_\_\_

**(1 Point)**

(MP3: Construct viable arguments and critique the reasoning of others.)

MP4 Models any of the situations described using tables, equations, ratios, or a written description of the complete mathematical process. \_\_\_\_\_

**(1 Point)**

(MP4: Model with mathematics.)

MP6 Accurately computes, writes correct equations when used, labels quantities appropriately, and uses mathematical language correctly in explanations. \_\_\_\_\_

**(1 Point)**

(MP6: Attend to precision.)

**Total Practice Points** \_\_\_\_\_

**Total Awarded Points** \_\_\_\_\_

## The CCSS for Mathematical Content Addressed in This Task

### Analyze proportional relationships and use them to solve real-world and mathematical problems.

- 7.RP.A.2a Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
- 7.RP.A.3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

### The CCSS for Mathematical Practice\*

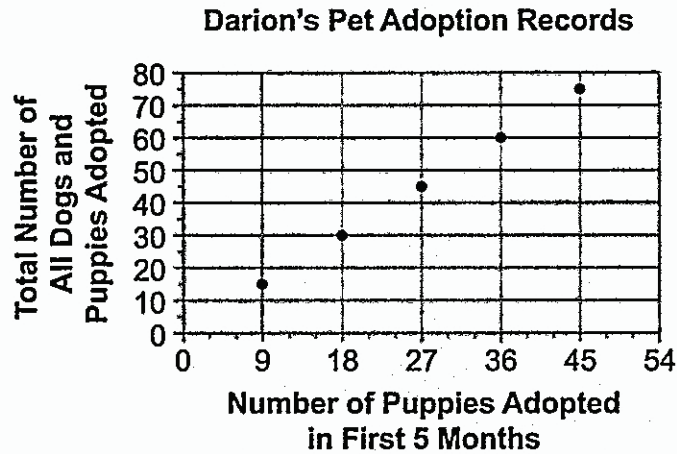
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

\*Gray text indicates Mathematical Practices that are not addressed in this task.


Students' responses to a mathematical task provide evidence of what they understand and are able to do in relation to the standards and practices. Across tasks, this cumulative evidence shows students' understanding and abilities within a domain. When students do not respond completely to all parts of a task, they provide insufficient evidence of their mathematical understanding and abilities and therefore do not fully demonstrate the expectations of the standards and practices aligned with that task.

## Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.




$$\frac{9}{15} = \frac{9}{15} \quad \frac{18}{30} = \frac{9}{15} \quad \frac{27}{45} = \frac{9}{15} \quad \frac{36}{60} = \frac{9}{15}$$

$$\frac{45}{75} = \frac{9}{15}$$

They all reduce to  $\frac{9}{15}$ .


# A-1b

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.


$$\frac{9}{15} = 60\% \quad \frac{18}{30} = 60\% \quad \frac{27}{45} = 60\%$$
$$\frac{36}{60} = 60\% \quad \frac{45}{75} = 60\%$$

Darion is correct, because they all equal 60% of puppies.

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.


$$\begin{aligned} \$38 \cdot .20 &= \$7.60 \\ \$38 - \$7.60 &= \$30.40 \end{aligned}$$

It costs \$30.40, because 20% of \$38 is \$7.60, and \$38 minus \$7.60 is \$30.40.



Guide 1

Litho 749705

Total Content Points: 2 (7.RP.A.2a, 7.RP.A.3)

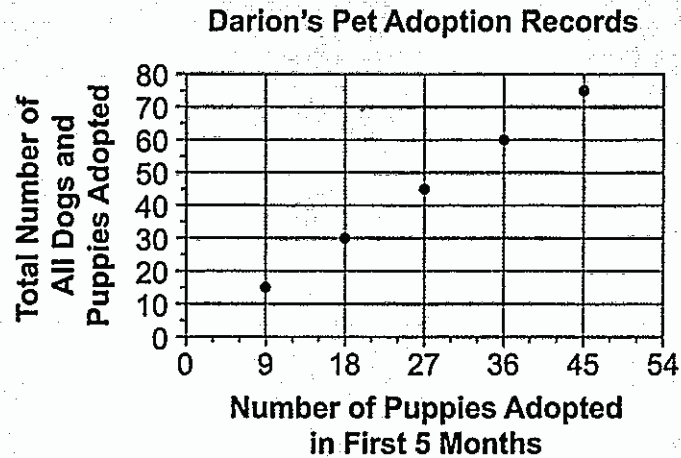
Total Practice Points: 3 (MP3, MP4, MP6)

The student correctly tests for proportionality by using the points on the graph to form equivalent ratios that all reduce to  $\frac{9}{15}$  (7.RP.A.2a). The student provides a logical argument in Part B by showing that the percent represented by each coordinate pair is the same, 60% (MP3). The student correctly finds the discounted cost of \$30.40 using mathematical reasoning in a multistep process (7.RP.A.3). The student models all the situations using ratios in Parts A and B and equations in Part C (MP4). The student accurately computes, writes correct equations, and labels quantities appropriately throughout the task (MP6).


Total Awarded Points: 5 out of 5

## Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.



$$\frac{15}{9} = 1.6$$

15 divided by 9

$$\frac{30}{18} = 1.6$$

30 divided by 18

$$\frac{45}{27} = 1.6$$

45 divided by 27


$$\frac{60}{36} = 1.6$$

60 divided by 36

$$\frac{75}{45} = 1.6$$


If you change the coordinates in to ratios you could get the unit rate for all of the ratios if the unit rate is the same for all the graph is proportional.

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

 Yes, Darion is correct because it is proportional the percents would be the same. You could put the points in ratios as puppies over all dogs and puppies and find the unit rate you move the decimal two places to the right and all the ratios equal 60%.

$$\frac{9}{15} = .6 = 60\% \quad \left| \quad \frac{18}{30} = .6 = 60\% \quad \left| \quad \frac{27}{45} = .6 = 60\% \quad \left| \quad \frac{36}{60} = .6 = 60\% \quad \left| \quad \frac{45}{75} = .6 = 60\%$$

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.

 The cost is \$30.40.

First make the percent a decimal  
make the percent sign a decimal and move it two places to the right,  $20\% = .20$   
Now multiply  $.20$  and  $\$38$  to equal  $\$7.60$   
Just subtract  $\$38$  by  $\$7.60$  to get  $\$30.40$

Guide 2

Litho 747126

Total Content Points: 2 (7.RP.A.2a, 7.RP.A.3)

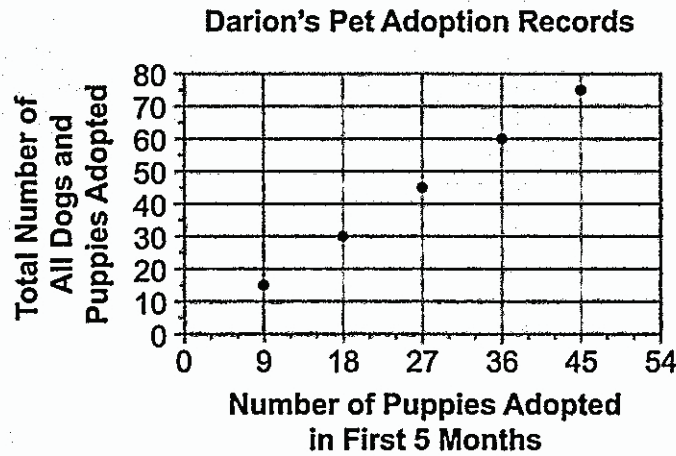
Total Practice Points: 3 (MP3, MP4, MP6)

The student correctly tests for proportionality by using the points on the graph to form equivalent ratios that all reduce to 1.6 (7.RP.A.2a). The student provides a logical argument in Part B by showing that the percent represented by each coordinate pair is the same, 60% (MP3). The student correctly finds the discounted cost of \$30.40 using mathematical reasoning in a multistep process (7.RP.A.3). The student models all the situations using ratios in Parts A and B and equations in Part C (MP4). The student accurately computes, writes correct equations, and labels quantities appropriately throughout the task (MP6).


Total Awarded Points: 5 out of 5

## Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.



$$\frac{9}{15} = \frac{18}{30} = \frac{27}{45} = \frac{36}{60} = \frac{45}{75} = \frac{54}{90}$$

$$\begin{array}{cccccc} \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ 3 & 3 & 3 & 3 & 3 & 3 \\ 5 & 5 & 5 & 5 & 5 & 5 \end{array}$$

It is proportional because they all equal  $\frac{3}{5}$  when simplified.

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

$9 \div 15 = .6$   
 $18 \div 30 = .6$   
 $27 \div 45 = .6$   
 $36 \div 60 = .6$   
 $45 \div 75 = .6$   
 $54 \div 90 = .6$

= 60%

yes becaue they all equal 60%

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.

$20\% \div 38 = .2 \div 38 = 1.6$   
 $38$   
 $- 7.6$   
 $\hline 30.4$

It will cost \$30.40

Guide 3

Litho 755563

Total Content Points: 2 (7.RP.A.2a, 7.RP.A.3)

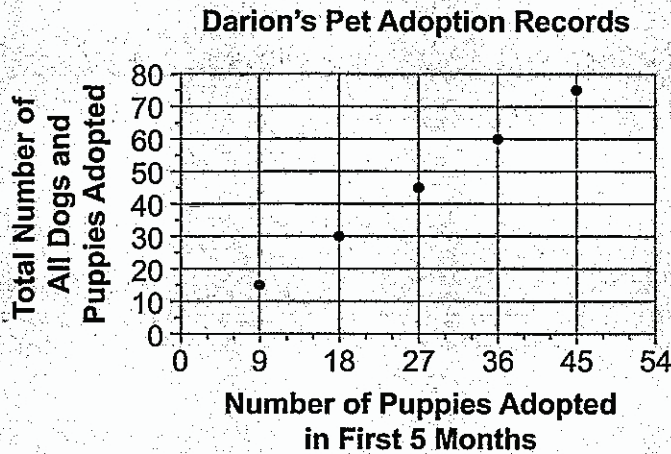
Total Practice Points: 2 (MP3, MP4)

The student correctly tests for proportionality by using the points on the graph to form equivalent ratios that all reduce to  $\frac{3}{5}$  (7.RP.A.2a). The student provides a logical argument in Part B by showing that the percent represented by each coordinate pair is the same, 60% (MP3). The student correctly finds the discounted cost of \$30.40 using mathematical reasoning in a multistep process (7.RP.A.3). Although the discount of \$7.60 implies correct multiplication, the student imprecisely uses a division sign in the first step of the calculation (no credit for MP6). The student models the situations using ratios in Parts A and B (MP4).

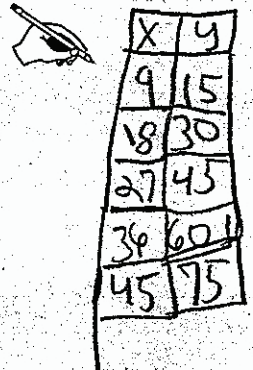
Total Awarded Points: 4 out of 5

## Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.



x	y
9	15
18	30
27	45
36	60
45	75

$$9 \div 15 = 0.6$$

$$18 \div 30 = 0.6$$

$$27 \div 45 = 0.6$$


$$36 \div 60 = 0.6$$

$$45 \div 75 = 0.6$$

The Reason Darion's graph is directly proportional is because x, number of puppies adopted in first five months, divided by y, total of all dogs and puppies adopted equals 0.6.



- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.



$$\frac{9}{15} \cdot 100 = 60\%$$

$$\frac{18}{30} \cdot 100 = 60\%$$


$$\frac{27}{45} \cdot 100 = 60\%$$

$$\frac{36}{60} \cdot 100 = 60\%$$

$$\frac{45}{75} \cdot 100 = 60\%$$

Yes, he is correct because each ordered pair times one hundred equals sixty percent and each ordered pair are equivalent.

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.



$$\frac{20}{100} = \frac{1}{5}$$

$$38 \cdot \frac{1}{5} = 7\frac{3}{5} = \$7.60$$

Thirty eight dollars times twenty percent or one over five equals seven dollars and sixty cents

Guide 4

Litho 782949

Total Content Points: 1 (7.RP.A.2a)

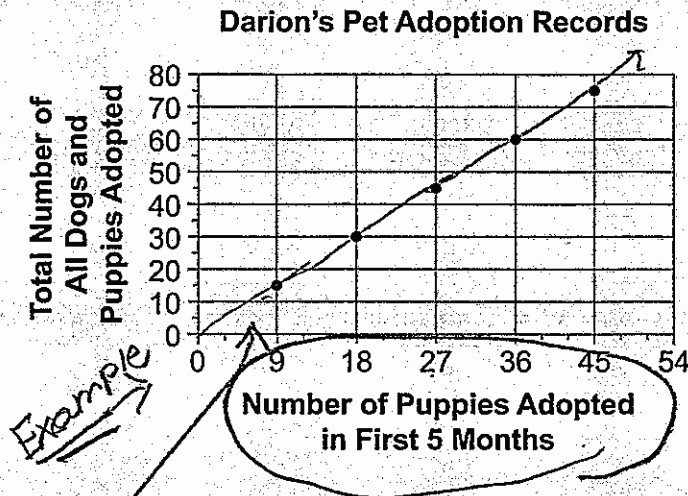
Total Practice Points: 3 (MP3, MP4, MP6)

The student correctly tests for proportionality by using the points on the graph to form equivalent ratios that all reduce to 0.6 (7.RP.A.2a). The student provides a logical argument in Part B by showing that the percent represented by each coordinate pair is the same, 60% (MP3). The student only completes the first half  $\left(38 \times \frac{1}{5} = 7\frac{3}{5} = \$7.60\right)$  of the multistep process to compute the cost of adopting a dog at the discounted price (no credit for 7.RP.A.3). However, the student accurately computes, writes correct equations, and labels quantities appropriately (MP6). The student models the situations using ratios in Parts A and B (MP4).

Total Awarded Points: 4 out of 5

## Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.

*because it stays straight  
as a proportional or direct  
would.*

X	Y
0	0
9	10
18	20
27	30
36	40
45	50
54	60

*← proportional*

X 70  
x 80

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

$9 = \frac{9}{15} = 60\%$   
 $18 = \frac{18}{30} = 60\%$   
 $27 = \frac{27}{45} = 60\%$   
 $36 = \frac{36}{60} = 60\%$   
 $45 = \frac{45}{75} = 60\%$

This means the graph is showing that it's all about puppies.

Yes he is correct.

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.

$38 = \text{fee}$   
 $-20\% = 18 \$ \text{ fee}$

So it is cheaper for first time buyers.

Guide 5

Litho 784815

Total Content Points: 1 (7.RP.A.2a)

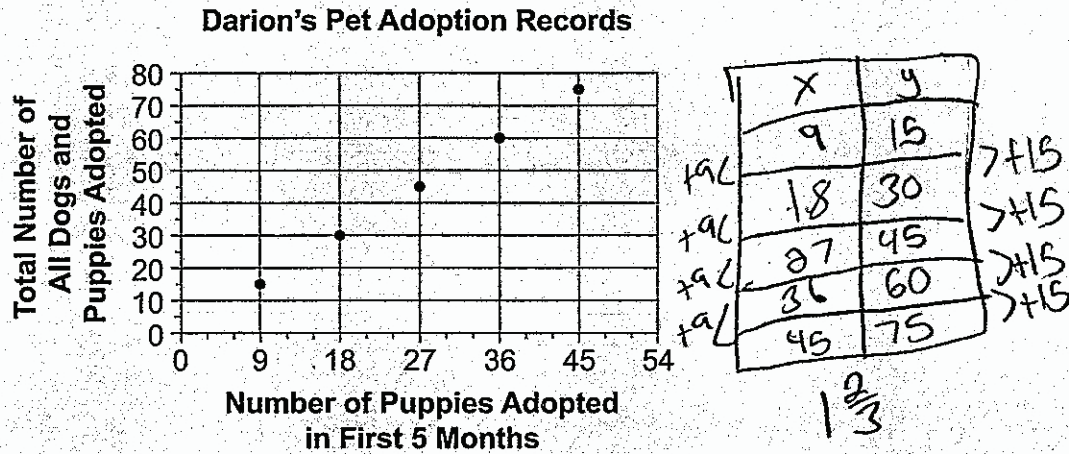
Total Practice Points: 2 (MP3, MP4)

The student correctly tests for proportionality by drawing a straight line through the points on the graph and constructing a table of the values, with  $(0, 0)$  circled to indicate the line passes through the origin (7.RP.A.2a). The student provides a logical argument in Part B by showing that the percent represented by each coordinate pair is the same, 60% (MP3). The student incorrectly computes the discounted cost as \$18 for adopting a dog by subtracting the percent discount by the total (no credit for 7.RP.A.3); thus the student does not attend to precision throughout the task (no credit for MP6). The student models the situation using ratios in Part B (MP4).

Total Awarded Points: 3 out of 5

## Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.

Darion's graph represents a proportional relationship because the slope stays the same, and never changes. Also, when you divide each x by the y you get the same number.

$$9 \div 15 = 0.6$$


$$18 \div 30 = 0.6$$

$$27 \div 45 = 0.6$$


$$36 \div 60 = 0.6$$

$$45 \div 75 = 0.6$$

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

 Darion is correct because each month another nine puppies get adopted. It never changes they just go up every month by nine.

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.

 First you have to change 20% to a decimal. Then you multiply 38 dollars times 0.20. Finally you get how much money all first-time adopters pay after the discount, which is \$7.60.

$$\$38 * 0.20 = \$7.60$$

Guide 6

Litho 784830

Total Content Points: 1 (7.RP.A.2a)

Total Practice Points: 1 (MP4)

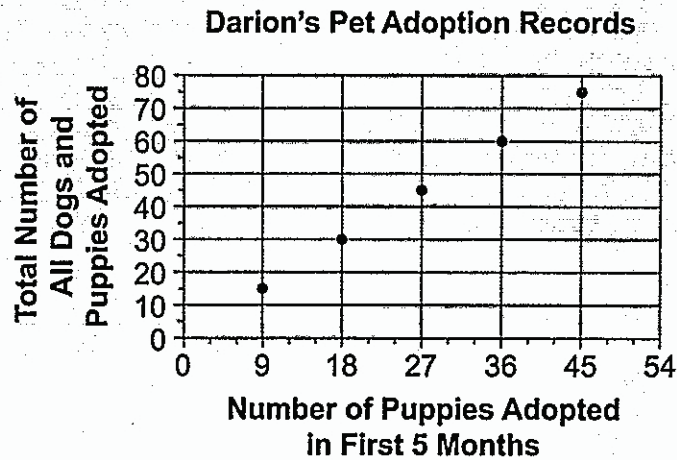
The student correctly tests for proportionality by using the points on the graph to form equivalent ratios of 0.6 (7.RP.A.2a). The argument in Part B is insufficient because it addresses the number of puppies adopted per month instead of the ratio or percentage (no credit for MP3). The student only completes the first half of the multistep process ( $\$38 \times 0.20 = \$7.60$ ) to compute the cost of adopting a dog at the discounted price (no credit for 7.RP.A.3). The student does not form ratios or determine a percentage in Part B, or complete the cost calculation in Part C (no credit for MP6). The student models the situation using ratios in Part A (MP4).

Total Awarded Points: 2 out of 5




### Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.

 Because first it is on 15, 30, 45, 60, and then 75 all of them skip one line. And some of them are in between numbers on the graph. So that's why it's a proportional.

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

$\frac{9}{15} = 0.6$   
 $\frac{18}{30} = 0.6$   
 $\frac{27}{45} = 0.6$   
 $\frac{36}{60} = 0.6$   
 $\frac{45}{75} = 0.6$

Yes he is correct, because if you divide the number of puppies adopted in first 5 months by the total amount of dogs and puppies adopted they all equal 0.6.

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.

$\frac{38}{15} = \frac{20\%}{x}$

$x = 7.089 = 7.90 = \$8.00$  (rounded)

The discounted price is \$8.00

Guide 7

Litho 747444

Total Content Points: 0

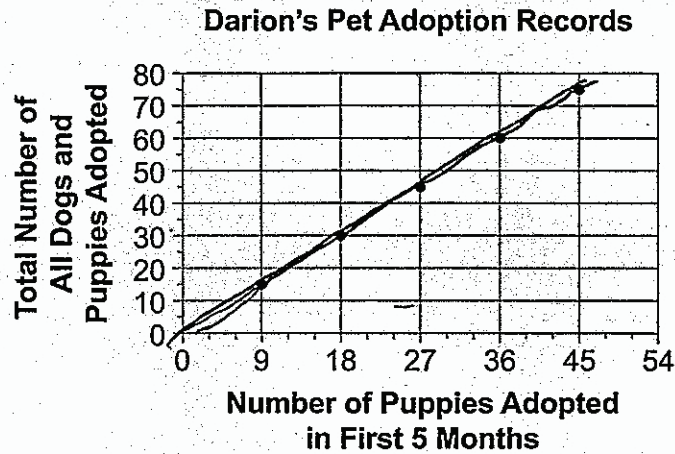
Total Practice Points: 2 (MP3, MP4)

The student does not correctly test for proportionality in Part A because only the  $y$ -values of the ordered pairs on the graph (15, 30, 45, 60, and 75) are cited (no credit for 7.RP.A.2a). The student makes a correct logical argument in Part B by representing each coordinate pair as the same equivalent ratio (0.6), which is the decimal form of 60% (MP3). The student models the situation using ratios in Part B (MP4). The proportion used to find the discounted cost of adopting a dog in Part C  $\left(\frac{38}{15} = \frac{20\%}{x}\right)$  is incorrect (no credit for 7.RP.A.3). The student does not correctly test for proportionality in Part A or correctly formulate the calculation for the discounted price in Part C (no credit for MP6).


Total Awarded Points: 2 out of 5


## Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.




- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.


 Cause it goes through zero zero  $\frac{0}{0}$



- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

 The puppies can be like 1 or 2 and can still be trained. The actual dogs can't be trained as easy.  
 He is not correct the puppies should cost more than the dogs ONLY cause they can still be trained.

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.

  $38 - 20 = 18$   
 It will ~~cost~~ cost 18\$

Guide 8

Litho 755714

Total Content Points: 1 (7.RP.A.2a)

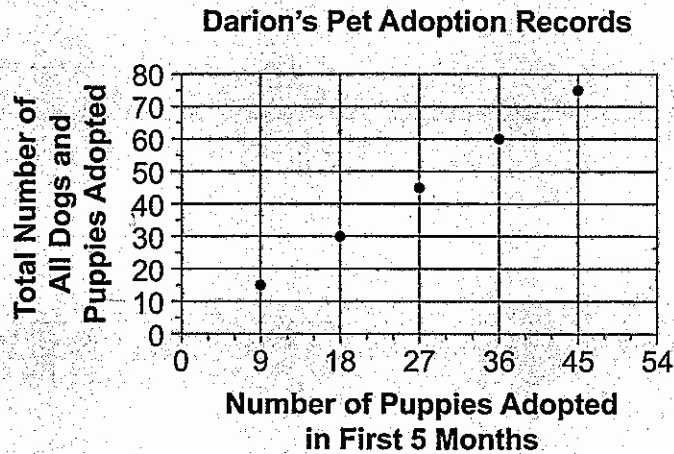
Total Practice Points: 0

The student shows that the graph in Part A is a proportional relationship by drawing a straight line through the points and observing the line goes through the origin (7.RP.A.2a). The student does not provide a logical argument that all of the points on the graph represent the same percent in Part B (no credit for MP3). The student uses an incorrect equation ( $38 - 20 = 18$ ) to determine the cost of adopting a dog at the discounted price in Part C (no credit for 7.RP.A.3). The student does not appropriately model any of the parts of the task, showing lack of precision throughout the task (no credit for MP4, no credit for MP6).

Total Awarded Points: 1 out of 5

### Task 1. Pet Adoptions Task

Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.




- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.

every 5 months the number of puppies adopted goes up by 9.


9, 18, 27, 36, 45, 54.  
+9 +9 +9 +9 +9

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.

 Darion is incorrect. Each percent is different.

9 puppies = 15%	} all different.
18 puppies = 30%	
27 puppies = 45%	
36 puppies = 60%	
45 puppies = 75%	

- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.

 \$38 fee

- 20% off discount.

---

7.60 \$ for your first visit.



Total Content Points: 0

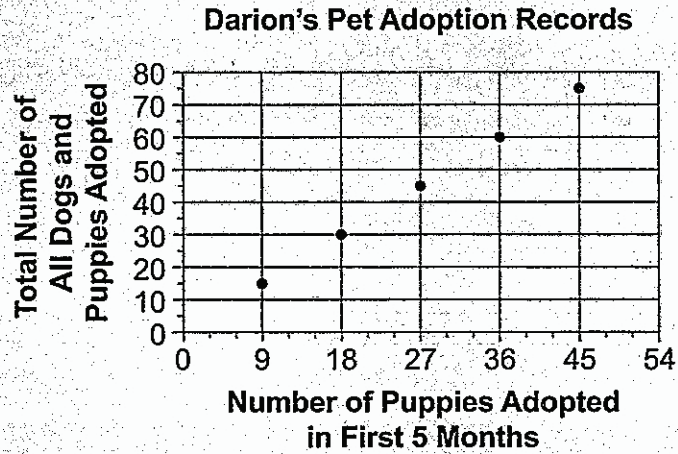
Total Practice Points: 0

The student does not correctly test for proportionality in Part A because only the  $x$ -values on the graph (9, 18, 27, 36, 45, and 54) are addressed (no credit for 7.RP.A.2a). In Part B, the student incorrectly refutes Darion's claim, misinterpreting the values on the  $y$ -axis as percentages of puppies adopted (no credit for MP3). The student only completes the first half ( $\$38 \times 20\% = 7.60\$$ ) of the multistep process to compute the discounted cost of adopting a dog (no credit for 7.RP.A.3). The student does not accurately compute percentages in Part B or the discounted price in Part C (no credit for MP4); therefore, the student shows a lack of precision throughout the task (no credit for MP6).


Total Awarded Points: 0 out of 5

## Task 1. Pet Adoptions Task

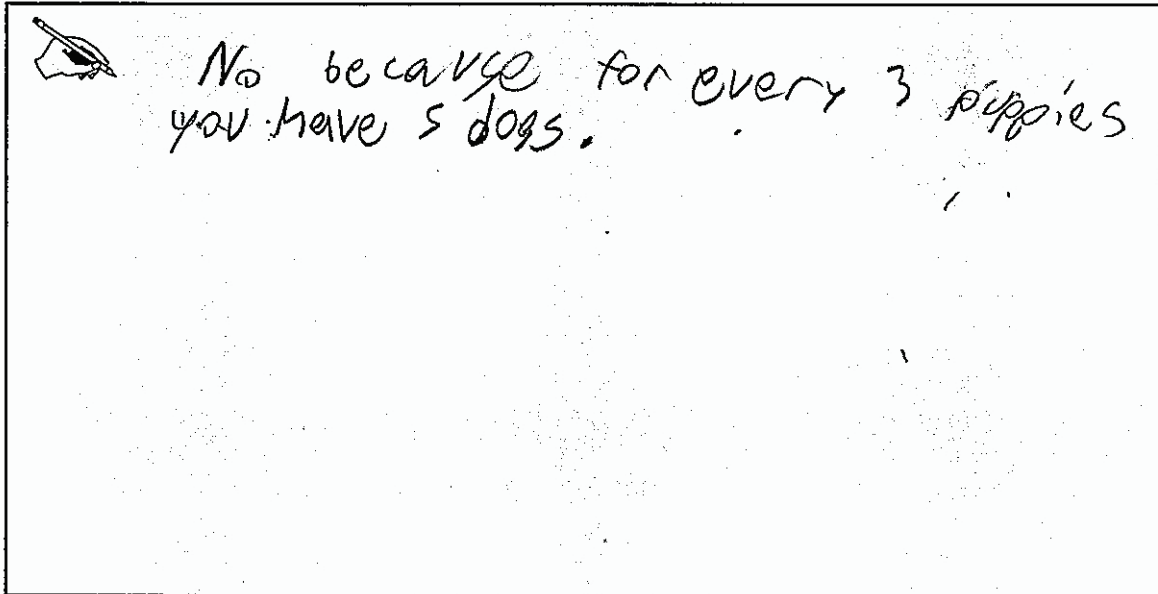
Darion works at Best Friends Pet Shelter. Darion keeps records for dog adoptions. The graph below represents the relationship between the total number of all dogs and puppies adopted and the number of puppies adopted in the first 5 months of the year.



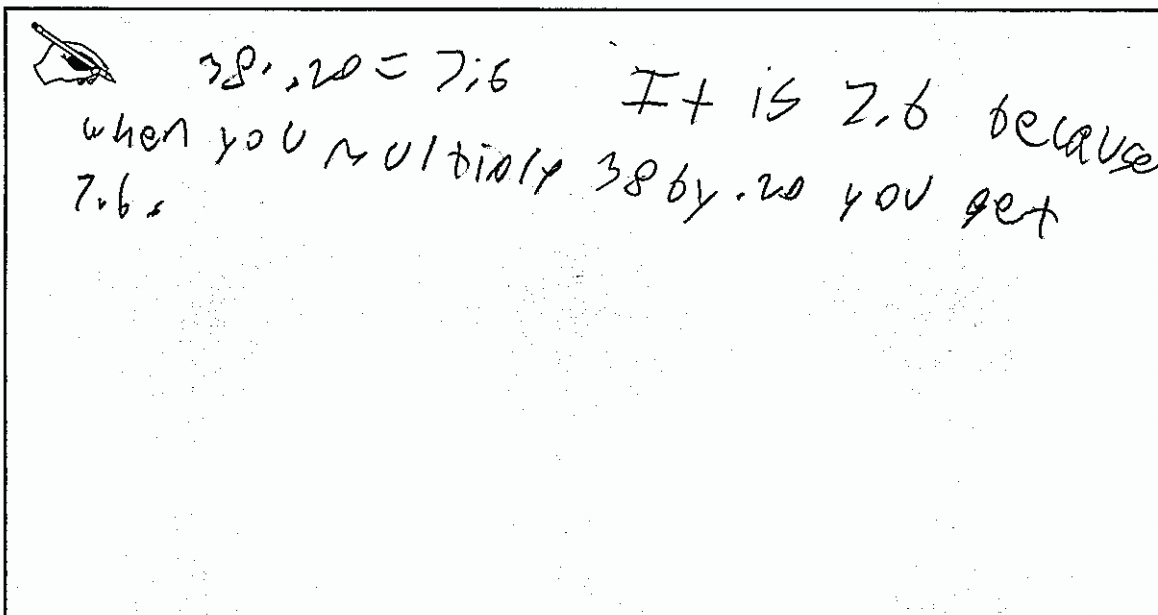
- a. Use mathematical reasoning to explain why Darion's graph represents a proportional relationship.

 It represents a proportional relationship because it goes through the origin.

- b. Darion makes the claim, "For all points on the graph, the percent of adopted dogs that are puppies is the same." Is Darion correct? Use mathematical reasoning to justify why or why not.



- c. There is a \$38 fee when adopting a dog or puppy from Best Friends Animal Shelter. Next month, in an effort to encourage more people to adopt dogs and puppies, Best Friends Animal Shelter is offering a 20% discount for all first-time adopters. What is the cost of adopting a dog at the discounted price? Use mathematical reasoning to justify your response.



Total Content Points: 0

Total Practice Points: 0

The student does not correctly test for proportionality in Part A, stating only that a proportional relationship “goes through the origin” and ignoring the linear relationship (no credit for 7.RP.A.2a). The student apparently misunderstands the values used to determine percentages by refuting Darion’s claim with the statement “no because for every 3 puppies you have 5 dogs” (no credit for MP3). The student only does the first half ( $38 \times .20 = 7.6$ ) of the multistep process to compute the cost of adopting a dog at the discounted price (no credit for 7.RP.A.3). The student does not appropriately model any of the parts of the task (no credit for MP4). Incomplete answers throughout the task indicate a lack of precision (no credit for MP6).

Total Awarded Points: 0 out of 5