

Math  
Released Item 2019

Grade 4

Time Reading Book  
0217-M00823P

# Anchor Set A1 – A12

With Annotations

# Prompt

Marcy and her friends recorded how long it took each of them to read the same book. Their results are shown in the table.

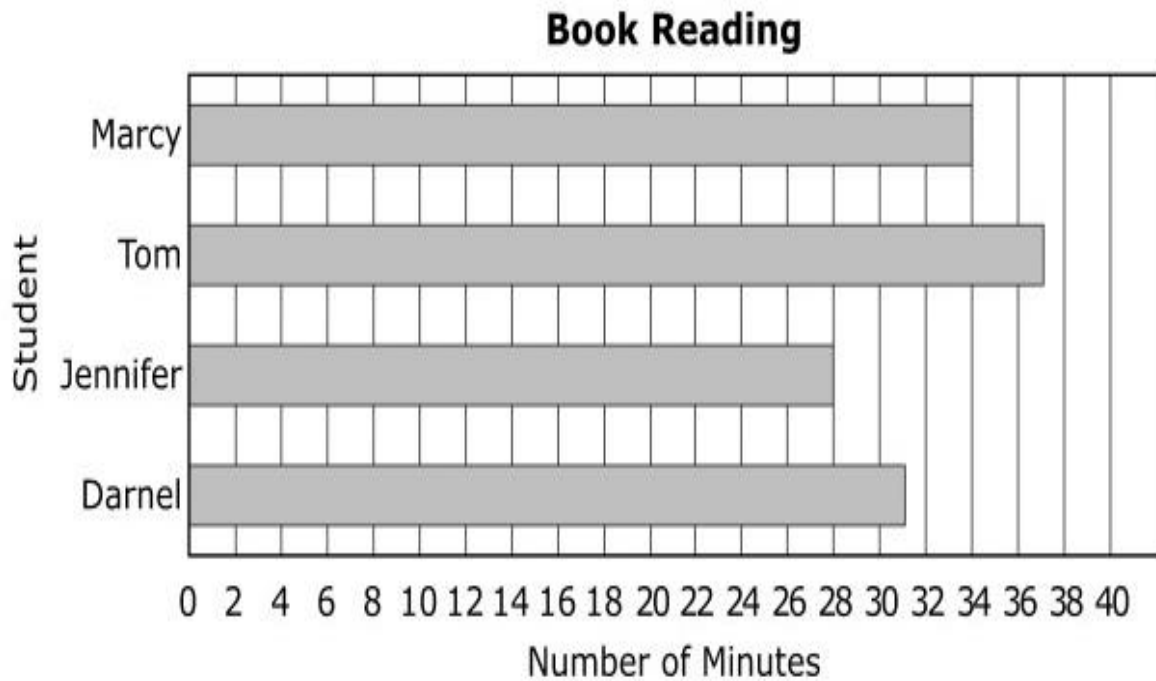
**Book Reading**

Name	Number of Minutes
Marcy	35
Tom	37
Jennifer	28
Darnel	31

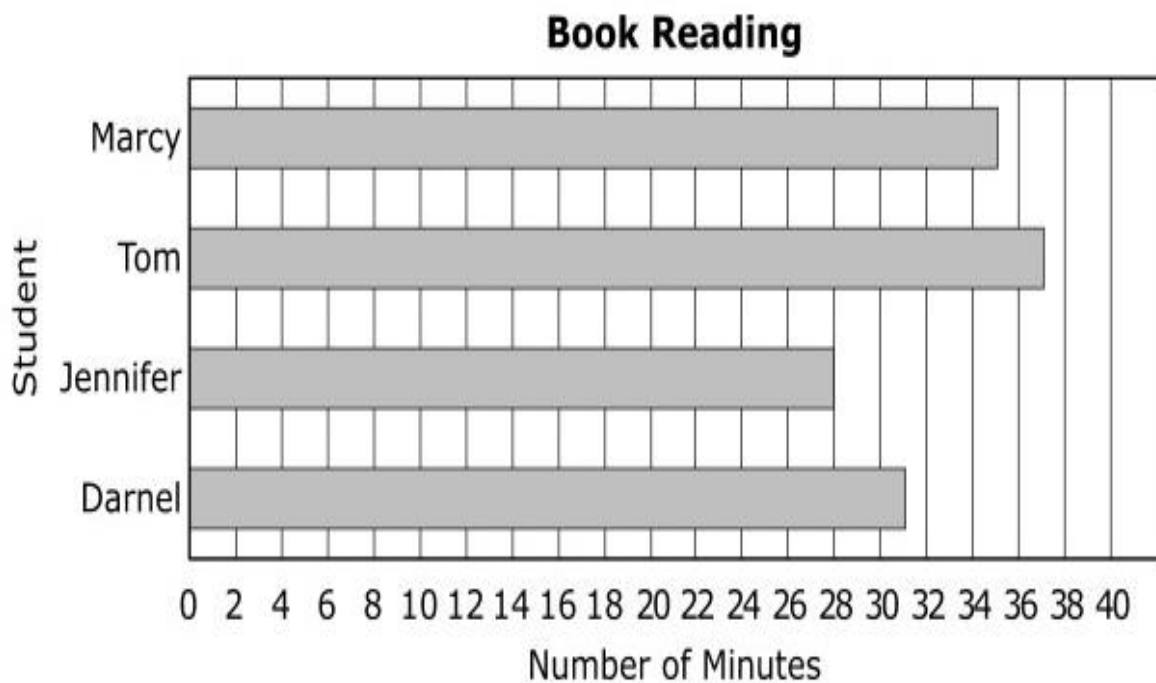
### Part A

Marcy wants to record data on a bar graph. Which bar graph correctly shows the length of time each student read?

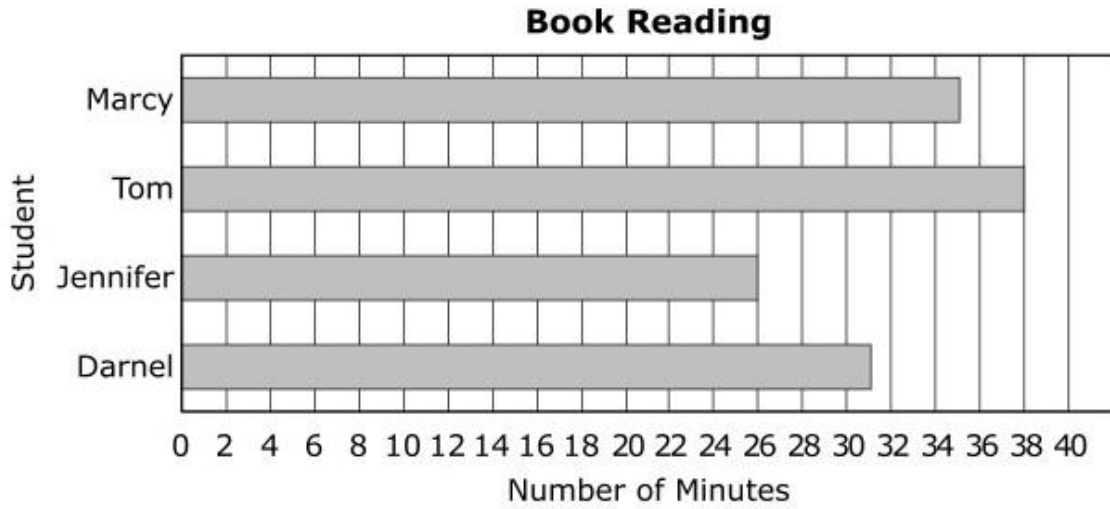
A.



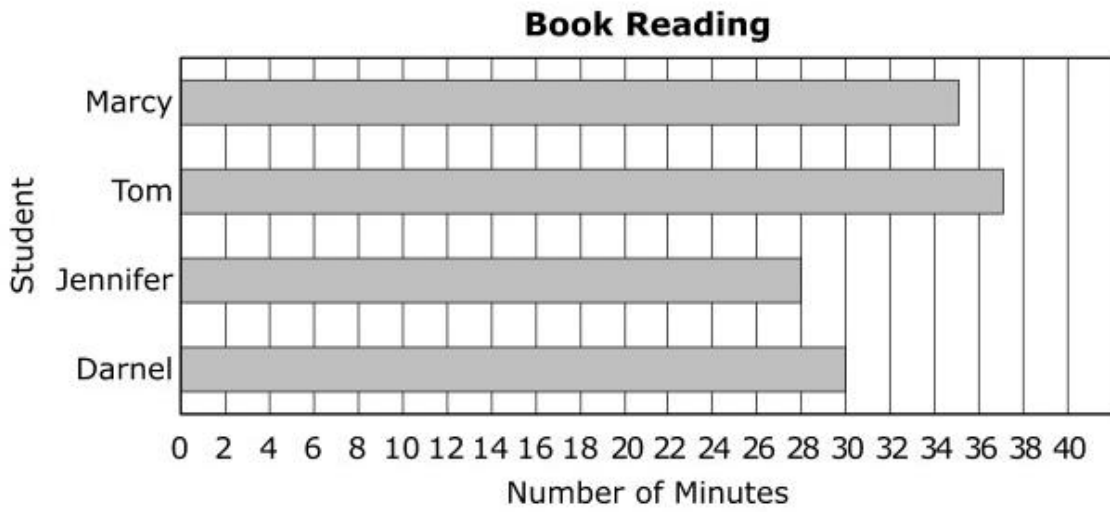
B.



C.



D.



## Part B

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

Enter your explanation in the space provided.



### Math symbols



## Part C

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

Enter your answer and your work in the space provided.



### Math symbols



**M04\_0217-M00823P Rubric Part A (Machine Scored)**

<b>Score</b>	<b>Description</b>
<b>1</b>	<b>This part of the item is machine scored.</b> <ul style="list-style-type: none"><li>• <b>Computation component</b> = 1 point<ul style="list-style-type: none"><li>○ The student correctly selects option B.</li></ul></li></ul>
<b>0</b>	The response is incorrect or irrelevant.

**M04\_0217-M00823P Rubric Part B**

<b>Score</b>	<b>Description</b>
<b>2</b>	<p>Student response includes each of the following 2 elements:</p> <ul style="list-style-type: none"><li>• <b>Modeling component</b> = 2 points<ul style="list-style-type: none"><li>○ Valid explanation of how to select the graph where the number of minutes that Tom read should be</li><li>○ Valid explanation of how to select the graph where the number of minutes that Darnel read should be</li></ul></li></ul> <p>Sample Student Response:</p> <p>The number of minutes Tom read was 37 and since the graph was counting by 2, I had to find the numbers before and after 37, which is 36 and 38; therefore I knew I had to select between the two numbers to graph the number 37 for Tom.</p> <p>The number of minutes Darnel read was 31 and since the graph was counting by 2, I had to find the numbers before and after 31, which is 30 and 32; therefore I knew I had to select between the two numbers to graph the number 31 for Darnel.</p> <p>Or other valid response.</p>
<b>1</b>	Student response includes 1 of the 2 elements.
<b>0</b>	The response is incorrect or irrelevant.

**M04\_0217-M00823P Rubric Part C**

<b>Score</b>	<b>Description</b>
<b>3</b>	<p>Student response includes each of the following 3 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point                             <ul style="list-style-type: none"> <li>○ Correct number of minutes, 13</li> </ul> </li> <li>• <b>Modeling component</b> = 2 points                             <ul style="list-style-type: none"> <li>○ Valid work shown to find minutes read by each pair</li> <li>○ Valid work shown to find the difference in minutes</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p style="padding-left: 40px;">It took Marcy and Tom 72 minutes. <math>35 + 37 = 72</math>                      It took Jennifer and Darnel 59 minutes. <math>28 + 31 = 59</math>                      Marcy and Tom read 13 minutes longer than Jennifer and Darnel.  <math>72 - 59 = 13</math></p> <p>Or other valid response.</p>
<b>2</b>	Student response includes 2 of the 3 elements.
<b>1</b>	Student response includes 1 of the 3 elements.
<b>0</b>	The response is incorrect or irrelevant.



**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

Since the bar graph was counting by two's, and the amount of minutes Tom and Darnel read were odd numbers, Marcy had to put them between two numbers. Darnel read 31 pages so Marcy had to put Darnel between 30 and 32. Tom read 37 pages so he would be put between 36 and 38.

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

First, I knew Tom read 37 minutes and Marcy read 35, next I added  $37 + 35 = 72$ . Jennifer read 28 minutes and Darnel read 31,  $31 + 28 = 59$ . Last, I subtracted  $72 - 59 = 13$ , 13 more minutes.

## Annotation

### Anchor Paper 1

#### Part B: Score Point 2

This response receives full credit. The response includes each of the two required elements.

- The response correctly explains how to select the graph where the number of minutes Tom read should be (Tom read 37 pages so he would be put between 36 and 38).
- The response correctly explains how to select the graph where the number of minutes Darnel read should be (Darnel read 31 pages so Marcy had to put Darnel between 30 and 32).

#### Part C: Score Point 3

This response receives full credit. The response includes each of the three required elements.

- The response provides the correct number of minutes (13 more minutes).
- Work is shown to find the total number of minutes for each pair ( $37 + 35 = 72$ ;  $31 + 28 = 59$ ).
- Work is shown to find the difference in the number of minutes ( $72 - 59 = 13$ ).

Part B: Score Point 2

Part C: Score Point 3

**Part B** the graph was counting by 2's  
 Tom and Darnel read a odd  
 number of minutes Tom read  
 37 minutes Marcy mark him  
 in the middle of 36 and 38  
 which is 37 same for Darnel except  
 30 and 32 which is 31

**Part C**

$$\begin{array}{r}
 35 \quad 28 \\
 +37 \quad +31 \\
 \hline
 72 \quad -59 = \textcircled{13}
 \end{array}$$
  

$$\begin{array}{r}
 6 \\
 -72 \\
 -59 \\
 \hline
 \textcircled{13}
 \end{array}$$

13 = 13

## Annotation

### Anchor Paper 2

#### Part B: Score Point 2

This response receives full credit. The response includes each of the two required elements.

- The response correctly explains how to select the graph where the number of minutes Tom read should be (Tom read 37 minutes Marcy mark him in the middle of 36 and 38 which is 37).
- The response correctly explains how to select the graph where the number of minutes Darnel read should be (same for Darnel except 30 and 32 which is 31).

#### Part C: Score Point 3

This response receives full credit. The response includes each of the three required elements.

- The response provides the correct number of minutes (13).
- Work is shown to find the total number of minutes for each pair ( $35 + 37 = 72$ ;  $28 + 31 = 59$ ).
- Work is shown to find the difference in the number of minutes ( $72 - 59 = 13$ ).

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

Well let's say Darrel read it in 31 minutes and the bar graph only has a 30 and a 32 mark then she could put it in between the marks.

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

Marcy and Tom minutes  
 $35 + 37 = 72$   
Jennifer and Darrel minutes  
 $28 + 31 = 59$   
Who read more  
 $72 > 59$   
 $72 - 59 = 13$  It took Marcy and Tom 13 more minutes.

## Annotation

### Anchor Paper 3

#### Part B: Score Point 1

This response receives partial credit. The response includes one of the two required elements.

- The response correctly explains how to select the graph where the number of minutes Darnel read should be (Darrel read it in 31 minutes and the bar graph only has a 30 and 32 mark then she could put it in between the marks).

An explanation of how to select the graph regarding Tom is not provided in the response.

#### Part C: Score Point 3

This response receives full credit. The response includes each of the three required elements.

- The response provides the correct number of minutes (It took Marcy and Tom 13 more minutes).
- Work is shown to find the total number of minutes for each pair ( $35 + 37 = 72$ ;  $28 + 31 = 59$ ).
- Work is shown to find the difference in the number of minutes ( $72 - 59 = 13$ ).

Part B: Score Point 2

Part C: Score Point 2

## Part B

marcy should be in the  
 34 and 38 and Tom should  
 be in the middle of  
 38 and 38 and Daniel  
 should be in the middle of  
 30 and 32

## Part C

$$\begin{array}{r} + 35 \\ + 37 \\ \hline 72 \end{array}$$

$$\begin{array}{r} + 28 \\ + 31 \\ \hline 59 \end{array}$$

13 more minutes  
 and 13 less minutes

## Annotation

### Anchor Paper 4

#### Part B: Score Point 2

This response receives full credit. The response includes each of the two required elements.

- The response correctly explains how to select the graph where the number of minutes Tom read should be (Tom should be in the middle of 36 and 38).
- The response correctly explains how to select the graph where the number of minutes Darnel read should be (Darnel should be in the middle of 30 and 32).

#### Part C: Score Point 2

This response receives partial credit. The response includes two of the three required elements.

- The response provides the correct number of minutes (13 more minutes).
- Work is shown to find the total number of minutes for each pair ( $35 + 37 = 72$ ;  $28 + 31 = 59$ ).

Work to find the difference in the number of minutes is not shown in the response.



Part B: Score Point 2

Part C: Score Point 1

**Part B** She selected where she  
new they could go there was only  
36 and 38 for Tom so she  
went in between the two for  
tom and Darrel there was only  
30 and 32 so she went in between  
the two for 31.

**Part C** marcey and Tom read 13teen  
more time than Jennifer and Darrel

## Annotation

### Anchor Paper 5

#### Part B: Score Point 2

This response receives full credit. The response includes each of the two required elements.

- The response correctly explains how to select the graph where the number of minutes Tom read should be (there was only 36 and 38 for Tom so, she went in between the two for Tom).
- The response correctly explains how to select the graph where the number of minutes Darnel read should be (and Darnel there was only 30 and 32 so she went in between the two for 31).

#### Part C: Score Point 1

This response receives partial credit. The response includes one of the three required elements.

- The response provides the correct number of minutes (Marcey and Tom read 13teen more).

Work to find the total number of minutes for each pair is not shown in the response.

Work to find the difference in the number of minutes is not shown in the response.

Part B: Score Point 1  
Part C: Score Point 2

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

tom and darnells ends of the bars should be in the middle of their lower numbers like for example toms number was 37 it should be between 36 and 38

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

marcy and tom read 15 more minutes than jennifer and darnel i did  
 $35 + 37$  for tom and marcy the i did  
 $28 + 31$  for darnell and jennifer then i did  
 $72 - 59$  becuase 72 came from the 35 and 37 and the 59 came from the 38 and 31 so then i got 15

## Annotation

### Anchor Paper 6

#### Part B: Score Point 1

This response receives partial credit. The response includes one of the two required elements.

- The response correctly explains how to select the graph where the number of minutes Tom read should be (toms number was 37 it should be between 36 and 38).

The response does not sufficiently explain how to select the graph where the number of minutes Darnel read should be. The explanation must be specific to Darnel's data to receive credit for this element.

#### Part C: Score Point 2

This response receives partial credit. The response includes two of the three required elements.

- Work is shown to find the total number of minutes for each pair ( $35 + 37$ ;  $28 + 31$ ; 72 came from 35 and 37 and 59 came from 38 and 31).
- Work is shown to find the difference in the number of minutes ( $72 - 59$ ).

The response provides an incorrect number of minutes for the difference in the number of minutes more that Marcy and Tom read together than Jennifer and Darnel read together (marcy and tom read 15 more minutes than jennifer and darnel).

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

Marcy selected where the ends of the bars would be by using the numbers on the side to guide her and for odd numbers she put it in between two even numbers for example Tom read for 37 mins so she put the bar in between 36 and 38

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

$$\begin{array}{l} 35 + 37 = 72 \\ 28 + 31 = 59 \\ 72 > 59 \end{array}$$

## Annotation

### Anchor Paper 7

#### Part A: Score Point 1

This response receives partial credit. The response includes one of the two required elements.

- The response correctly explains how to select the graph where the number of minutes Tom read should be (Tom read for 37 mins so she put the bar in between 36 and 38).

The response does not explain how to select the graph where the number of minutes Darnel read should be.

#### Part B: Score Point 1

This response receives partial credit. The response includes one of the three required elements.

- Work is shown to find the total number of minutes for each pair ( $35 + 37 = 72$ ;  $28 + 31 = 59$ ).

The response does not provide the number of minutes for the difference in the number of minutes more that Marcy and Tom read together than Jennifer and Darnel read together.

Work to find the difference in the number of minutes is not shown in the response.

Part B: Score Point 0

Part C: Score Point 2

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

she looked that the chart and fould  
the numder

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

$$72 - 59 = 13$$

## Annotation

### **Anchor Paper 8**

#### **Part B: Score Point 0**

This response receives no credit. The response includes none of the two required elements.

The response does not explain how to select the graph where the number of minutes Tom read should be.

The response does not explain how to select the graph where the number of minutes Darnel read should be.

#### **Part C: Score Point 2**

This response receives partial credit. The response includes two of the three required elements.

- The response provides the correct number of minutes (13).
- Work is shown to find the difference in the number of minutes ( $72 - 59 = 13$ ).

Work to find the total number of minutes for each pair is not shown in the response.



**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

she did it by going in the middle of the two numbers before and after it

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

$28 + 31 = 59$  that is Jennifer and Darnel  
 $35 + 37 = 72$  that is Marcy and Tom  
Marcy and Tom read 59 more minutes

## Annotation

### Anchor Paper 9

#### Part B: Score Point 0

This response receives no credit. The response includes none of the two required elements.

The response does not sufficiently explain how to select the graph where the number of minutes Tom read should be. The statement provided is generalized.

The response does not sufficiently explain how to select the graph where the number of minutes Darnel read should be. The statement provided is generalized.

#### Part C: Score Point 1

This response receives partial credit. The response includes one of the three required elements.

- Work is shown to find the total number of minutes for each pair ( $28 + 31 = 59$ ;  $35 + 37 = 72$ ).

The response provides an incorrect number of minutes for the difference in the number of minutes more that Marcy and Tom read together than Jennifer and Darnel read together (Marcy and Tom read 59 more minutes).

Work to find the difference in the number of minutes is not shown in the response.

Part B: Score Point 0

Part C: Score Point 1

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

toms bars would be at 37 and darnel would be at 31.

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

they read 13 more than jenifer and darnel.

## **Annotation**

### **Anchor Paper 10**

#### **Part B: Score Point 0**

This response receives no credit. The response includes none of the two required elements.

The response does not sufficiently explain how to select the graph where the number of minutes Tom read should be. The statement only restates the given data.

The response does not sufficiently explain how to select the graph where the number of minutes Darnel read should be. The statement only restates the given data.

#### **Part C: Score Point 1**

This response receives partial credit. The response includes one of the three required elements.

- The response provides the correct number of minutes (they read 13 more than Jennifer and Darnel).

Work to find the total number of minutes for each pair is not shown in the response.

Work to find the difference in the number of minutes is not shown in the response.

Part B: Score Point 0

Part C: Score Point 0

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

I looked at the number and it had the middle of the lines a so I know that it was right.

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

$$\begin{array}{l} 35 + 37 = 73 \\ 28 + 31 = 59 \end{array}$$

## Annotation

### **Anchor Paper 11**

#### **Part B: Score Point 0**

This response receives no credit. The response includes none of the two required elements.

The response does not sufficiently explain how to select the graph where the number of minutes Tom read should be.

The response does not sufficiently explain how to select the graph where the number of minutes Darnel read should be.

#### **Part C: Score Point 0**

This response receives no credit. The response includes none of the three required elements.

The response does not provide the number of minutes for the difference in the number of minutes more that Marcy and Tom read together than Jennifer and Darnel read together.

The work shown to find the total number of minutes is not correct for each pair. The work for Jennifer and Darnel is correct ( $28 + 31 = 59$ ); however, the work for Marcy and Tom is incorrect ( $35 + 37 = 73$ ).

Work to find the difference in the number of minutes is not shown in the response.

Part B: Score Point 0

Part C: Score Point 0

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

She selected how Tom and Darnel being seeing how long it took them to read a book.

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

$$35 - 37 = 2$$
$$28 - 31 = 3$$

## Annotation

### **Anchor Paper 12**

#### **Part B: Score Point 0**

This response receives no credit. The response includes none of the two required elements.

The response does not sufficiently explain how to select the graph where the number of minutes Tom read should be.

The response does not sufficiently explain how to select the graph where the number of minutes Darnel read should be.

#### **Part C: Score Point 0**

This response receives no credit. The response includes none of the three required elements.

The response does not provide the number of minutes for the difference in the number of minutes more that Marcy and Tom read together than Jennifer and Darnel read together.

The work shown to find the total number of minutes for each pair is incorrect ( $35 - 37 = 2$ ,  $28 - 31 = 3$ ). The number of minutes for each pair should be added, not subtracted in order to find the total.

Work to find the difference in the number of minutes is not shown in the response.



# Practice Set

## P1 - P5

No Annotations Included

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

Tom and Darnel both did not have anywhere to be put because she was counting by twos so she should put Tom between 36 and 38 because the number between them would have been 37. Darnel should have been put between the numbers 30 and 32 because the number between them would have been 31.

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

$35 + 37 = 72$  and  $28 + 31 = 59$   
then I did  $72 - 59 = 13$

**Part B**

Explain how Marcy selected where the ends of the bars for Tom and Darnel should be.

He would know where to put Tom and Darnel's ends of the bars because the graph goes by 2's and if you put it in the middle it will count as an odd number.

**Part C**

How many more minutes did Marcy and Tom read together than Jennifer and Darnel read together?

Show the work you used to find out how many more minutes it took Marcy and Tom to read the book than it did for Jennifer and Darnel to read the book.

$$\begin{aligned}35 + 37 &= 72 \\28 + 31 &= 59 \\72 - 59 &= 13\end{aligned}$$

## Part B

She selected by using a bar graph  
and placing numbers at the bottom  
starting from 0 to 40.

## Part C

$$\begin{array}{r} 135 \\ + 37 \\ \hline 172 \end{array}$$

$$\begin{array}{r} 28 \\ + 31 \\ \hline 59 \end{array}$$

$$\begin{array}{r} 672 \\ - 69 \\ \hline 603 \end{array}$$

Marej and Tom read 3 more minutes than  
Jennifer and Darnel.

**Part B**

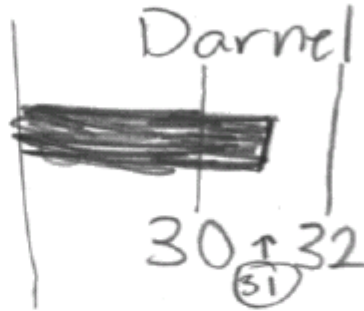
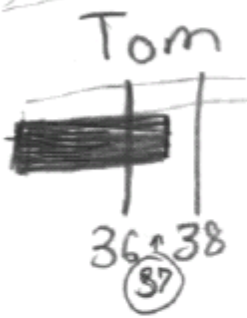
Marcy new that Tom and Darnel should be were they are in the graph. She thought for tom, 37 should be in the middle of 36 and 38, and Darnel should be in between 30 and 32.

**Part C**

Marcy and Tom read 11 more minutes than Jenifer and Darnel.

Part B

She selected in the middle of 36 and 38 for tom and in the middle of 30 and 32 for darnel because:



Part C

It took marcy and tom 72 min. in all together to read and it took 59 min. for Jennifer and Darnel to read All together. So marcy and tom read 13 more min. than Jennifer and Darnel did Because!

$$\begin{array}{r}
 72 \\
 -59 \\
 \hline
 13
 \end{array}$$

## Practice Set

<b>Paper</b>	<b>Score</b>
<b>P1</b>	<b>2,3</b>
<b>P2</b>	<b>0,3</b>
<b>P3</b>	<b>0,2</b>
<b>P4</b>	<b>2,0</b>
<b>P5</b>	<b>2,2</b>