



Math
Released Item 2016

Grade 3

Number of Books Read
VF653466

Prompt

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

Enter your explanation in the space provided.

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

Enter your answer and your work in the space provided.

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

Enter your equation in the space provided.

Rubric

Task is worth a total of 4 points.

Number of Books Read – Part A	
Score	Description
1	<p>Student response includes the following element.</p> <ul style="list-style-type: none">• Reasoning component = 1 point<ul style="list-style-type: none">○ The student explains the place value error made. <p>Sample Student Response: "Rick is incorrect. There is the same number of hundreds, but 8 tens is more than 7 tens."</p> <p>Note:</p> <ul style="list-style-type: none">• A variety of explanations are valid as long as the student indicates a clear understanding of the error made.
0	Student response is incorrect or irrelevant.

Number of Books Read – Part B	
Score	Description
1	<p>Student response includes the following element.</p> <ul style="list-style-type: none">• Reasoning component = 1 point<ul style="list-style-type: none">○ The student provides a correct comparison between the number of books read in January and the number of books read in February. <p>Sample Student Response: "172 < 180" or "180 > 172"</p>
0	Student response is incorrect or irrelevant.

Number of Books Read – Part C

Score	Description
2	<p>Student response includes the following 2 elements.</p> <ul style="list-style-type: none">• Reasoning component = 1 point<ul style="list-style-type: none">○ The student writes a correct equation to indicate the total number of books read in January and February.• Computation component = 1 point<ul style="list-style-type: none">○ Correct answer, 352. <p>Sample Student Response:</p> <p>"172 + 180 = ? ? is 352" OR "172 + 180 = 352"</p> <p>Note:</p> <ul style="list-style-type: none">• A variety of equations are valid.
1	<p>Student response includes 1 of the above elements.</p>
0	<p>Student response is incorrect or irrelevant.</p>

Anchor Set A1 – A10

With Annotations

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

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

Ricky did make an error because if you have 172 and 180 you compare because look at the 7 and the 8 in the tens place the 8 is bigger and that makes 180 bigger. 1

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$$180 > 172$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$$180 + 172 = 352$$

The total is 352

Annotation

Anchor Paper 1

Part A: Score Point 1

This response receives full credit. The student includes the required element.

- The error is explained by using place value (if you have 172 and 180 you compare because look at the 7 and the 8 in the tens place the 8 is bigger and that makes 180 bigger).

Part B: Score Point 1

This response receives full credit. The student includes the required element.

- A correct comparison is provided between the number of books read in January and the number of books read in February ($180 > 172$).

Part C: Score Point 2

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

- A correct equation is written to indicate the total number of books read in January and February ($180 + 172 = 352$).
- The correct total number of books is found (352).

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

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

rick did make a error about the books because 180 is greater than 172 the 8 in the tens place is greater than the 7 in the tens place. thats why it is an error.

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$$172 < 180$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$$172 + 180 = 352$$

Annotation

Anchor Paper 2

Part A: Score Point 1

This response receives full credit. The student includes the required element.

- The error is explained by using place value (the 8 in the tens place is greater than the 7 in the tens place).

Part B: Score Point 1

This response receives full credit. The student includes the required element.

- A correct comparison is provided between the number of books read in January and the number of books read in February ($172 < 180$)

Part C: Score Point 2

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

- A correct equation is written to indicate the total number of books read in January and February ($172 + 180 = 352$).
- The correct total number of books is found (352).

Part A: Score Point 1**Part B: Score Point 0****Part C: Score Point 2**

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

He is wrong because if you look at the 10 place in January is 70 and in February is 80 and 80 is bigger than 70.

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$70 < 80$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$180 + 172 = 352$

Annotation

Anchor Paper 3

Part A: Score Point 1

This response receives full credit. The student includes the required element.

- The error is explained by using place value (he is wrong because if you look at the 10 place in January is 70 and in February is 80 and 80 is bigger than 70).

Part B: Score Point 0

This response receives no credit. The student does not include the required element.

A comparison is written for the place value of the tens place in each number ($70 < 80$) instead of the total number of books for each of the two months. The correct terms must be compared to receive credit.

Part C: Score Point 2

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

- A correct equation is written to indicate the total number of books read in January and February ($180 + 172 = 352$).
- The correct total number of books is found (352).

Part A: Score Point 1

Part B: Score Point 1

Part C: Score Point 1

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

172 in place value is $1 = 100$
 $7 = 70$
 $2 = 2$
180 in place value is $1 = 100$
 $8 = 80$ $0 = 0$
180 is bigger because it has a higher tens number he read more in February

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$172 < 180$ Rick was wrong

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$172 + 180 = 252$

Annotation

Anchor Paper 4

Part A: Score Point 1

This response receives full credit. The student includes the required element.

- The error is explained by using place value. The student defines the place value for the digits in each of the two numbers and then explains (180 is bigger because it has a higher tens number . . .).

Part B: Score Point 1

This response receives full credit. The student includes the required element.

- A correct comparison is provided between the number of books read in January and the number of books read in February ($172 < 180$).

Part C: Score Point 1

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

- A correct equation is written to indicate the total number of books read in January and February ($180 + 172 = 252$). The computation error does not detract from the equation being correctly set up.

The response shows an incorrect total number of books (252) and does not receive credit for the computational element.

Part A: Score Point 0

Part B: Score Point 0

Part C: Score Point 2

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

$$172 + 180 = 352$$

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$$172 < 180$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$$352$$

Annotation

Anchor Paper 5

Part A: Score Point 0

This response receives no credit. The student does not include the required element.

The response shows no attempt to explain Rick's error, but instead writes an equation to solve the total number of books.

Part B: Score Point 0

This response receives no credit. The student does not include the required element.

The response does not attempt a comparison between the total number of books read in January and the total number of books read in February. Instead, It merely shows the number of books read for each month (172, 180).

Part C: Score Point 2

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

- A correct equation is written to indicate the total number of books read in January and February ($172 + 180 = 352$).
- The correct total number of books is found (352).

Note: the equation is found in Part A, but is acceptable for credit in part C.

Part A: Score Point 1

Part B: Score Point 1

Part C: Score Point 0

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

Rick is not right because 172 is not as much as 180 and a one hundred block with 8 tens would be exactly eight more than 1 100 and 7 tens and 2 one blocks.

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$$172 < 180$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$$\begin{array}{r} 180 \\ 172 = 362 \end{array}$$

Annotation

Anchor Paper 6

Part A: Score Point 1

This response receives full credit. The student includes the required element.

- The error is explained by using place value (172 is not as much as 180 and a one hundred block with 8 tens would be exactly eight more than 1 100 and 7 tens and 2 one blocks).

Part B: Score Point 1

This response receives full credit. The student includes the required element.

- A correct comparison is provided between the number of books read in January and the number of books read in February ($172 < 180$).

Part C: Score Point 0

This response receives no credit. The student includes neither of the two required elements.

The response does not provide a correct equation to find the total number of books or the correct number of books.

A7a

Part A: Score Point 0

Part B: Score Point 0

Part C: Score Point 1

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

Rick's made an error because 180 is greater than 172.

Part A: Score Point 0

Part B: Score Point 0

Part C: Score Point 1

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

253

$$172 + 180 = 253$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$$172 + 180 = 253$$

Annotation

Anchor Paper 7

Part A: Score Point 0

This response receives no credit. The student does not include the required element.

The student does not use place value to explain Rick's error and does not receive credit for this element.

Part B: Score Point 0

This response receives no credit. The student does not include the required element.

The response contains an equation ($172 + 180 = 253$) instead of an inequality and does not receive credit for this element.

Part C: Score Point 1

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

- A correct equation is written to indicate the total number of books read in January and February ($172 + 180 = 253$). The computation error does not detract from the equation being correctly set up.

The response shows an incorrect total number of books (253) and does not receive credit for the computational element.

Part A: Score Point 0

Part B: Score Point 1

Part C: Score Point 0

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

No Rick is wrong because he
180 $\textcircled{>}$ 172. 180 is on February
172 is on January.

Part A: Score Point 0

Part B: Score Point 1

Part C: Score Point 0

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$$180 > 172$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

180 solve

$\begin{array}{r} 10 \\ + 80 \\ + 90 \\ \hline \end{array}$	$\begin{array}{r} 172 \\ \hline 70 \\ 2 \\ 82 \\ \hline \end{array}$
-------------------------------------------------------------	----------------------------------------------------------------------

Annotation

Anchor Paper 8

Part A: Score Point 0

This response receives no credit. The student does not include the required element.

The student does not use place value to explain Rick's error, and does not receive credit.

Part B: Score Point 1

This response receives full credit. The student includes the required element.

- A correct comparison is provided between the number of books read in January and the number of books read in February ($180 > 172$).

Part C: Score Point 0

This response receives no credit. The student includes neither of the two required elements.

The response does not contain a correct equation or the correct total number of books.

Part A: Score Point 0

Part B: Score Point 0

Part C: Score Point 0

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

$$b + 172 + 8 = 180$$

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$$172 \square > \square 180$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$$172 + ? = 180$$
$$172 + 8 = 180$$

Annotation

Anchor Paper 9

Part A: Score Point 0

This response receives no credit. The student does not include the required element.

Work is shown ($b + 172 + 8 = 180$), but place value is not used to explain Rick's error.

Part B: Score Point 0

This response receives no credit. The student does not include the required element.

The comparison ($172 > 180$) is incorrect.

Part C: Score Point 0

This response receives no credit. The student includes neither of the two required elements.

The equation shown is incorrect ($172 + ? = 180$) and shows the difference of the books read in January and February instead of finding the total number of books read.

The equation is then solved ($172 + 8 = 180$), but the solution (8) is reflective of the difference in books read in January and February instead of the total number of books read.

Part A: Score Point 0**Part B: Score Point 0****Part C: Score Point 0**

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

Rick is crect becos in January thay onie read 172 and February180

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

February > january

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

February 180

Annotation

Anchor Paper 10

Part A: Score Point 0

This response receives no credit. The student does not include the required element.

The response shows an incorrect comparison (Rick is crect becos in January thay onie read 172 and February 180).

Part B: Score Point 0

This response receives no credit. The student does not include the required element.

While the response shows a comparison of the two months (February>January), the prompt asks for the comparison of the total number of books read for each month.

Part C: Score Point 0

This response receives no credit. The student includes neither of the two required elements.

The response does not provide a correct equation to find the total number of books or the correct total number of books.

Practice Set
P101 - P105

No Annotations Included

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

Yes he made an error in his tens place. 172

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$172 > 180$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

172 total number

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

180 is greater than 172

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$180 > 172$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$180 + 172 = 352$

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

he is wrong because 172 is not bigger than 180

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$172 < 180$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

172they sad thats how much they read in january and they read 180 in february

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

11,52

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

180 $>$ is bigger than 172

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$180 + 172 = 11,52$

The students in Rick's class read a total of 172 books in January and a total of 180 books in February.

Part A

Rick says that the students read more books in January than in February.

Explain whether Rick made an error or not. Use place value in your explanation.

he did make a error

0 = bigger

J	1	7	2	100 + 70 + 2
F	1	8	0	100 + 80 + 0

80 is bigger than 70

Part B

Use $<$, $=$, or $>$ to write a comparison between the total number of books read in January and the total number of books read in February.

$$180 > 172$$

Part C

What is the total number of books read in January and February? Write an equation to show your answer.

$$\begin{aligned} 180 + 100 &= 280 \\ 280 + 70 &= 350 \\ 350 + 2 &= \textcircled{352} \end{aligned}$$

Practice Set

Paper	Score
P101	0,0,0
P102	0,1,2
P103	0,1,0
P104	0,1,1
P105	1,1,2