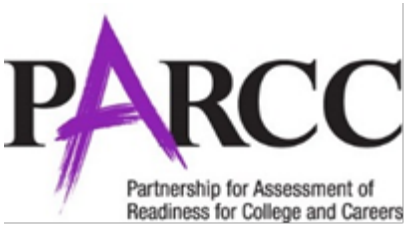

Math
Released Item 2016

Grade 4

Pet Store Gave Away Goldfish
M03520

Prompt

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

Rubric

Task is worth a total of 3 points.

Pet Store Gave Away Goldfish	
Score	**Description**
3	Student response includes the following 3 elements. • **Computation component** = 1 point o The correct total number of fish given away, 35. • **Modeling component** = 1 point o The correct number of customers and valid explanation of how many more customers would be needed to give away 1 more goldfish, 2 customers. • **Modeling component** = 1 point o Valid work shown. Sample Student Response: First, I found the total number of goldfish that were given away. I divided the number of customers who came to the store on Saturday by 6. $130 \div 6 = 21\,R4$ The owner gave away a total of 21 goldfish. Next, I found the number of clownfish that were given away. I divided the number of customers who came to the store on Saturday by 9. $130 \div 9 = 14\,R4$ The owner gave away a total of 14 clownfish. To find the total number of fish given away at the store on Saturday, I added. $21 + 14 = 35$ The owner gave away a total of 35 fish. In order for the owner to have given away 1 more goldfish, 2 more customers would have had to come to the store on Saturday. I know that with 130 customers, he gave away 21 goldfish. $130 \div 6 = 21\,R4$
2	Student response includes 2 of the above elements.

1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.

Anchor Set
A1 – A8

With Annotations

A1

Score Point 3

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

$130 \div 6 = 21R4$
$130 \div 9 = 14R4$
$21 + 14 = 35 fish$

$6 - 4 = 2$
$4 + 2 = 6$
He will need 2 more people.

Annotation

Anchor Paper 1

Score Point 3

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

- Correct total number of fish given away (35*fish*).
- Correct explanation of how many more customers would have had to come for the owner to give away 1 more goldfish (6 – 4 = 2; 4 + 2 = 6: He will need 2 more people).

  Valid work shown (130 ÷ 6 = 21*R*4; 130 ÷ 9 = 14*R*4; 21 + 14 = 35*fish*).

A2

Score Point 3

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

$130 \div 6 = 21\frac{4}{6}$

$130 \div 9 = 14\frac{4}{9}$

$21 + 14 = 35$

Answer for part $1 = 35$ fish

$6 - 4 = 2$

Answer for part $2 = 2$ more customers

Explanation:

I divided 130 by 6 to find out how many goldfish the owner gave away and I got $21\frac{4}{6}$ .Then I divided 130 by 9 to find out how many clownfish the owner gave away and I got $14\frac{4}{9}$. I added 21 and 14 to get 35 fish that the owner gave away. For the second question I knew that the goldfish had had 4 customers remaining so to get another goldfish 2 more customers had to come.

Annotation

Anchor Paper 2

Score Point 3

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

- Correct total number of fish given away (35 fish).
- Correct explanation of how many more customers would have had to come for the owner to give away 1 more goldfish (6 — 4 = 2 . . . the goldfish had had 4 customers remaining so to get another goldfish 2 more customers had to come).
- Valid work shown (130 ÷ 6 = $21\frac{4}{6}$; 130 ÷ 9 = $14\frac{4}{9}$; 21 + 14 = 35).

A3

Score Point 2

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

$130 \div 6 = 21R4$ so,4 more people would need to come for another goldfish to be given away.
35 fish total were given away because
$21 + 14 = 35$. I got the 14 because
$130 \div 9 = 14R4$

Annotation

Anchor Paper 3

Score Point 2

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

- Correct total number of fish given away (35 fish total were given away).
- Valid work shown (130 ÷ 6 = 21*R*4; 130 ÷ 9 = 14*R*4; 21 + 14 = 35).

There is an incorrect explanation is given for how many more customers would have had to come for the owner to give away 1 more goldfish (130 ÷ 6 = 21*R*4 so, 4 more people).

A4

Score Point 2

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

He gave 35 fishes away. $9 \div 130 = 14r4$
$6 \div 130 = 21r4\ 14 + 21 = 35$
They would need 2 more people.They would need 2 more people because 4 they have from the remainder and if 2 more people come they would have 6 and could give the next fish.

Annotation

Anchor Paper 4

Score Point 2

This response receives partial credit. It includes each of the three required elements. However, a precision point is deducted.

- Correct total number of fish given away (He gave 35 fishes away).
- Correct explanation of how many more customers would have had to come for the owner to give away 1 more goldfish (They would need 2 more people because 4 they have from the remainder and if 2 more people come they would have 6 and could give the next fish).
- Valid work shown to find the total number of fish (9 ÷ 130 = 14r4; 6 ÷ 130 =21r4; 14 + 21 = 35).

Valid work is provided for finding the total number of fish that were given away, but the work has improper mathematical notation (9 ÷ 130, 6 ÷ 130); e.g., it should be 130 ÷ 9 and 130 ÷ 6, to equal the quotients given. This is a precision issue. A scoring decision exists that if improper mathematical notation occurs in a given response and the response would have received the top score [score point 3 for this item] without the improper mathematical notation, a score point will be deducted.

A5

Score Point 1

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

He gave away 35 fish all together.
There 136 if 1 more goldfish was sold.

Annotation

Anchor Paper 5

Score Point 1

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

- Correct total number of fish given away (He gave away 35 fish all together).

There is an incorrect explanation of how many more customers would have had to come for the owner to give away 1 more goldfish (There 136 if 1 more goldfish was sold).

No work is shown.

A6

Score Point 1

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

35 fish

Annotation

Anchor Paper 6

Score Point 1

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

- Correct total number of fish given away (35 fish).

There is no explanation of how many more customers would have had to come for the owner to give away 1 more goldfish.

No work is shown.

A7

Score Point 0

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

21 customers got goldfish and 4 did'nt because when I divided and I got 21r4.14 customers will get a clownfish but 4 won't because when I divided I got14r4

Annotation

Anchor Paper 7

Score Point 0

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

No total number of fish given away is provided.

There is no explanation of how many more customers would have had to come for the owner to give way 1 more goldfish.

Incomplete work is shown. The student does provide the correct number of goldfish and clownfish with the remainders (21 customers got goldfish . . . 21 r4, 14 customers will get a clownfish . . . I got 14 r4), but no equations or other valid work are shown for how these numbers were found. Complete equations or other valid work for the division work must be shown to receive credit for this element.

A8

Score Point 0

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

6th customer gold fish
9th customer clownfish
130 customers

$130 \div 6 = 201r4$
$130 \div 9 = 14r4$
$205 + 18 = 223$
He gave away 223 fish.

Annotation

Anchor Paper 8

Score Point 0

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

An incorrect total number of fish given away is provided (He gave away 223 fish).

There is no explanation of how many more customers would have had to come for the owner to give way 1 more goldfish.

Incorrect work is shown (130 ÷ 6 = 201*r*4; 130 ÷ 9 = 14*r*4; 205 + 18 = 223). While the strategy for how to find the total number of fish is correct, the mathematical work contains multiple computational errors.

Practice Set
P101 - P105

No Annotations Included

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

The owner gave away 35 fish total beause $130 \div 9 = 14r4$ and $130 \div 6 = 21r4$. then you the totals without the remainders which equals 35. You would need 2 additional customers to give away 1 more goldfish because the store gives away a gold fish every 6 customers and the total amount of customers are $130 \div 6 = 21r4$. So, $6 - 4 = 2$. So, the store would need 2 more additional customers to sell 1 more goldfish.

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

$130 \div 6 = 214R4$

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

The total number of fish the owner gave away was 24 goldfish. I got that because you divide $130 \div 6$ because every 6 customer gets one.Two more people would have to come. Two more people would have tp come because when you divide $130 \div 6$ then you get 21 R 4 . So 4 $+2would$ be 6.

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

He gave away 35 fish because their is 21 goldfish and 14 clownfish. And $21+14=35$ fish in all. For question 2 you need to get 2 more people to get the goldfish because there is a remander of 4 you need to have 2 more customeers come in.

On Saturday the owner of a pet store gave away a goldfish to every sixth customer and a clownfish to every ninth customer. A total of 130 customers came to the store on Saturday.

- What is the total number of fish the owner gave away? Show your work.
- How many additional customers would need to have come for 1 more goldfish to be given away? Explain your answer.

Enter your answers, your work, and your explanation in the space provided.

$130 \div 6 = 21$ R4 it would take 2 more costumers to get 1 more goldfish because $4 + 2 = 6$ and 6 is what were dividing by so 2 more costumers to get a goldfish.

Practice Set

Paper	Score
P101	3
P102	0
P103	1
P104	2
P105	1