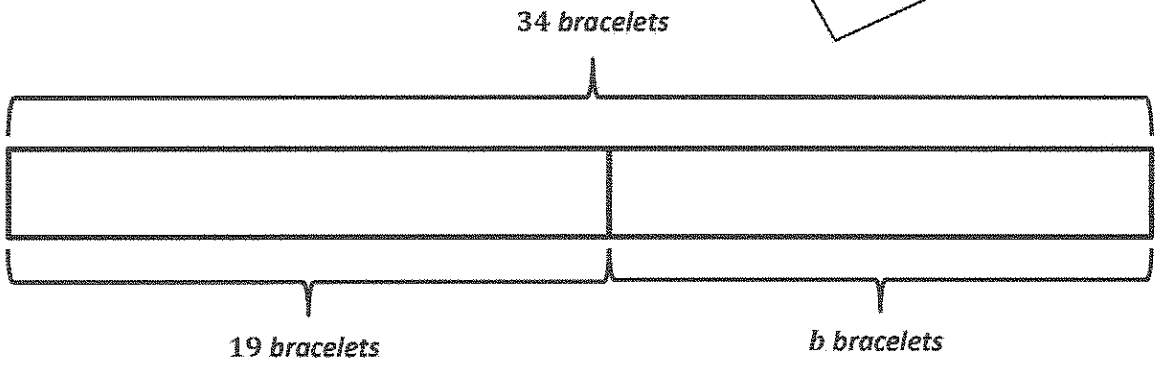
G3-M3-Lesson 21

Jen makes 34 bracelets. She gives 19 bracelets away as gifts and sells the rest for $3 each. She would like to buy an art set that costs $55 with the money she earns. Does she have enough money to buy it? Explain why or why not.

I can draw a model to show the known and unknown information. I can see from my drawing that I need to find a missing part. I can label my missing part with a b to represent the number of bracelets Jen has left to sell.



b represents the number of bracelets Jen has left to sell

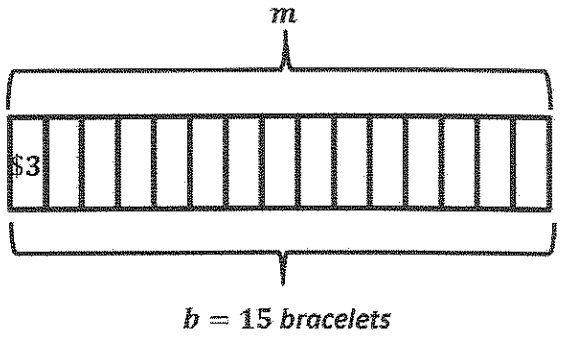
$34 - 19 = b$

$b = 15$

I can write what b represents and then write an equation to solve for b. I subtract the given part, 19, from the whole amount, 34. I can use a compensation strategy to think of $34 - 19$ as $35 - 20$ because $35 - 20$ is an easier fact to solve. Jen has 15 bracelets left.

This answer is reasonable because $19 + 15 = 34$. But it doesn't answer the question in the problem. Next, I have to figure out how much money Jen earns from selling the 15 bracelets, so I need to adjust my model.

Now that I know Jen has 15 bracelets left, I can split this part into 15 smaller equal parts. I know that she sells each bracelet for $3, so each part has a value of $3. I can also label the unknown as m to represent how much money Jen earns in total.



m represents the amount of money Jen earns

$$15 \times 3 = m$$
$$m = (10 \times 3) + (5 \times 3)$$
$$m = 30 + 15$$
$$m = 45$$

I can write what m represents and then write an equation to solve for m. I need to multiply 15 by 3, a large fact! I can use the break apart and distribute strategy to solve for 15×3. I can break up 15 threes as 10 threes and 5 threes and then find the sum of the 2 smaller facts.

Jen earns a total of $45 from selling 15 bracelets.

Jen does not have enough money to buy the art set. She is $10 short.

I am not finished answering the question until I explain why Jen does not have enough money to buy the art set.