

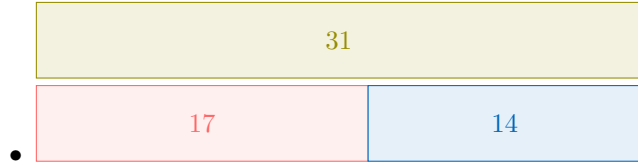
LINK BETWEEN ADDITION AND SUBTRACTION

A UNDERSTANDING INVERSE OPERATIONS

A.1 FINDING SUBTRACTION USING ADDITION

Ex 1: If we know that $17 + 14 = 31$, then $31 - 17 = \boxed{14}$.

Answer:



- We add to find the total:

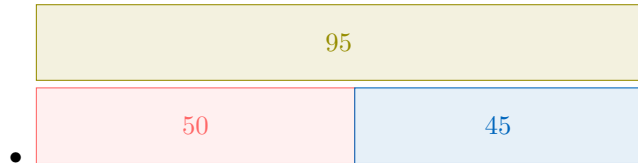
$$\begin{aligned} \text{part 1} + \text{part 2} &= \text{total} \\ 17 + 14 &= 31 \end{aligned}$$

- We subtract to find a part:

$$\begin{aligned} \text{total} - \text{part 1} &= \text{part 2} \\ 31 - 17 &= 14 \end{aligned}$$

Ex 2: If we know that $50 + 45 = 95$, then $95 - 50 = \boxed{45}$.

Answer:



- We add to find the total:

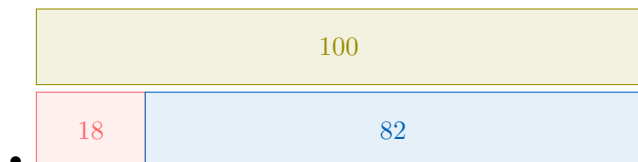
$$\begin{aligned} \text{part 1} + \text{part 2} &= \text{total} \\ 50 + 45 &= 95 \end{aligned}$$

- We subtract to find a part:

$$\begin{aligned} \text{total} - \text{part 1} &= \text{part 2} \\ 95 - 50 &= 45 \end{aligned}$$

Ex 3: If we know that $18 + 82 = 100$, then $100 - 18 = \boxed{82}$.

Answer:



- We add to find the total:

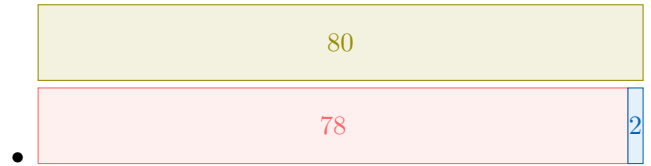
$$\begin{aligned} \text{part 1} + \text{part 2} &= \text{total} \\ 18 + 82 &= 100 \end{aligned}$$

- We subtract to find a part:

$$\begin{aligned} \text{total} - \text{part 1} &= \text{part 2} \\ 100 - 18 &= 82 \end{aligned}$$

Ex 4: If we know that $78 + 2 = 80$, then $80 - 78 = \boxed{2}$.

Answer:



- We add to find the total:

$$\begin{aligned} \text{part 1} + \text{part 2} &= \text{total} \\ 78 + 2 &= 80 \end{aligned}$$

- We subtract to find a part:

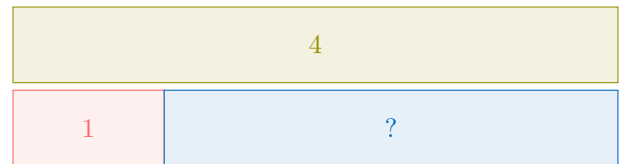
$$\begin{aligned} \text{total} - \text{part 1} &= \text{part 2} \\ 80 - 78 &= 2 \end{aligned}$$

A.2 FINDING THE MISSING SUBTRAHEND

Ex 5:

$$4 - \boxed{3} = 1$$

Answer:



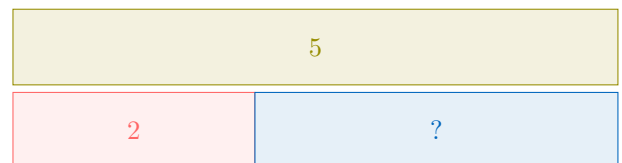
- $\text{total} - \text{part} = \text{part}$
 $\text{total} - \text{part} = \text{part}$

- $4 - 1 = 3$
 $4 - 3 = 1$

Ex 6:

$$5 - \boxed{3} = 2$$

Answer:



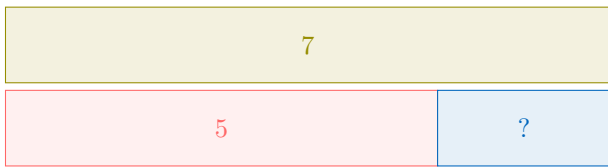
- $\text{total} - \text{part} = \text{part}$
 $\text{total} - \text{part} = \text{part}$

- $5 - 2 = 3$
 $5 - 3 = 2$

Ex 7:

$$7 - \boxed{2} = 5$$

Answer:

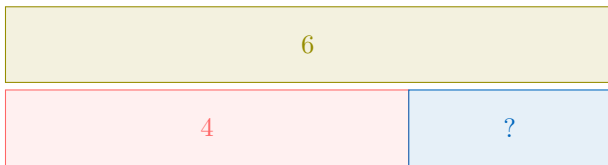


- $total - part = part$
 $total - part = part$
- $7 - 5 = 2$
 $7 - 2 = 5$

Ex 8:

$$6 - \boxed{2} = 4$$

Answer:

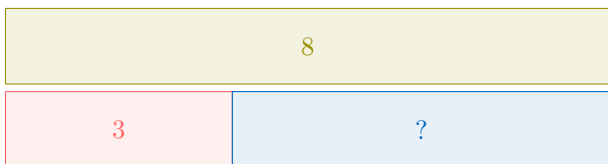


- $total - part = part$
 $total - part = part$
- $6 - 2 = 4$
 $6 - 4 = 2$

Ex 9:

$$8 - \boxed{5} = 3$$

Answer:



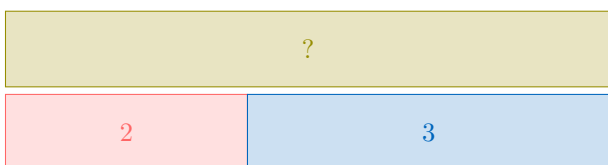
- $total - part = part$
 $total - part = part$
- $8 - 3 = 5$
 $8 - 5 = 3$

A.3 FINDING THE TOTAL IN SUBTRACTION PROBLEMS

Ex 10:

$$\boxed{5} - 2 = 3$$

Answer:



-

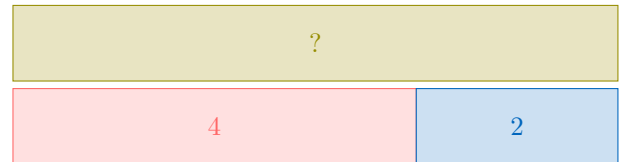
- $total - part = part$
 $total = part + part$

- $5 = 2 + 3$
 $5 - 2 = 3$

Ex 11:

$$\boxed{6} - 4 = 2$$

Answer:

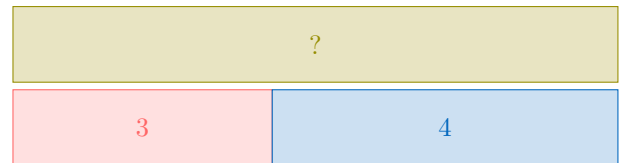


- $total - part = part$
 $total = part + part$
- $6 = 4 + 2$
 $6 - 4 = 2$

Ex 12:

$$\boxed{7} - 3 = 4$$

Answer:



- $total - part = part$
 $total = part + part$
- $7 = 3 + 4$
 $7 - 3 = 4$

Ex 13:

$$\boxed{8} - 5 = 3$$

Answer:



- $total - part = part$
 $total = part + part$
- $8 = 5 + 3$
 $8 - 5 = 3$

Ex 14:

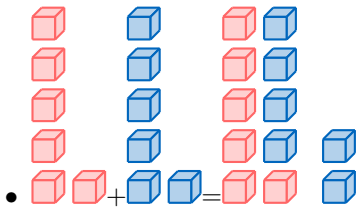
$$\boxed{9} - 6 = 3$$

Answer:

?

63

- total - part = part
total = part + part
- $9 = 6 + 3$
 $9 - 6 = 3$



• $6 + 6 = 12$

12

66

-

A.4 FINDING THE MISSING ADDEND

Ex 15:

$9 + \boxed{2} = 11$

Answer:

- $9 + 2 = 11$

11

92

-

Ex 16:

$7 + \boxed{5} = 12$

Answer:

- $7 + 5 = 12$

12

75

-

Ex 17:

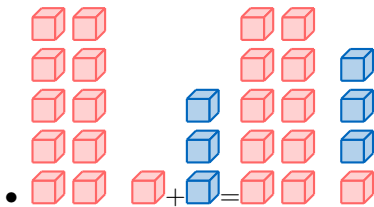
$6 + \boxed{6} = 12$

Answer:

Ex 18:

$11 + \boxed{3} = 14$

Answer:



• $11 + 3 = 14$

14

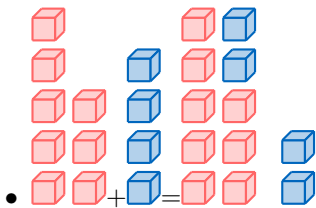
113

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Ex 19:

$8 + \boxed{4} = 12$

Answer:



• $8 + 4 = 12$

12

84

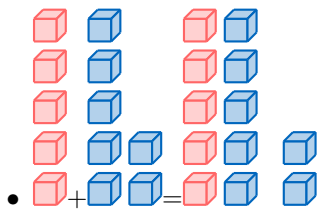
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Ex 20:

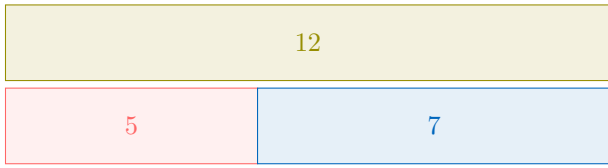
$5 + \boxed{7} = 12$

Answer:





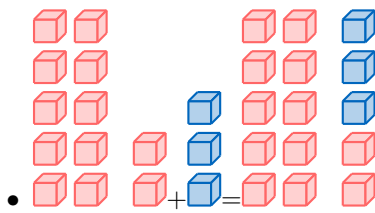
• $5 + 7 = 12$



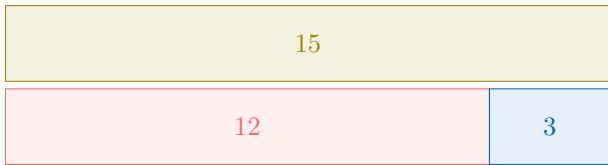
Ex 21:

$12 + \boxed{3} = 15$

Answer:



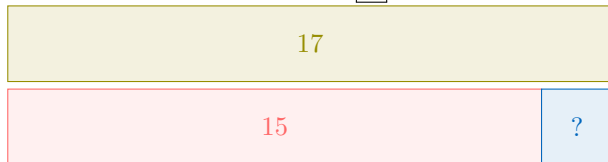
• $12 + 3 = 15$



A.5 SUBTRACTING BY THINKING ADDITION

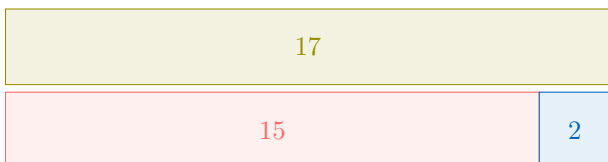
Ex 22:

$17 - 15 = \boxed{2}$



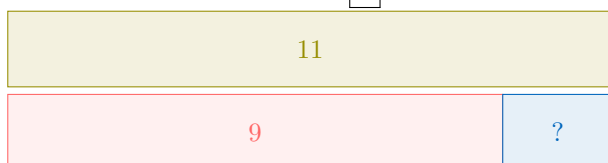
Answer:

• $15 + 2 = 17$
• $17 - 15 = 2$



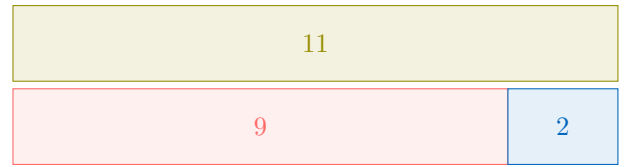
Ex 23:

$11 - 9 = \boxed{2}$



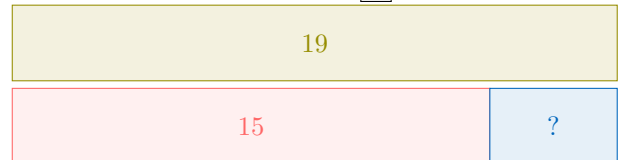
Answer:

• $9 + 2 = 11$
• $11 - 9 = 2$



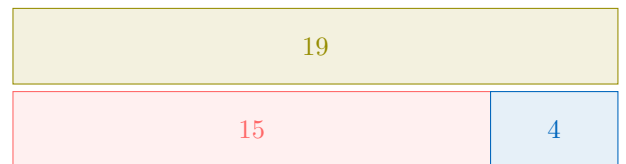
Ex 24:

$19 - 15 = \boxed{4}$



Answer:

• $15 + 4 = 19$
• $19 - 15 = 4$



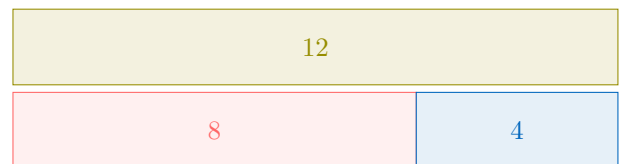
Ex 25:

$12 - 8 = \boxed{4}$



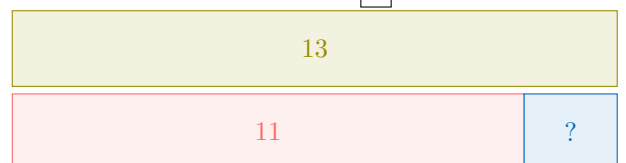
Answer:

• $8 + 4 = 12$
• $12 - 8 = 4$



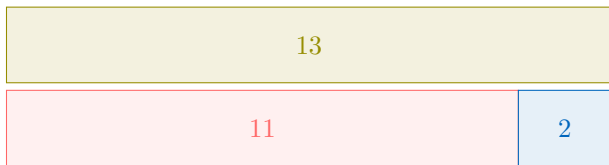
Ex 26:

$13 - 11 = \boxed{2}$



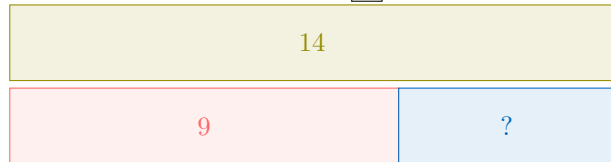
Answer:

- $11 + 2 = 13$
- $13 - 11 = 2$



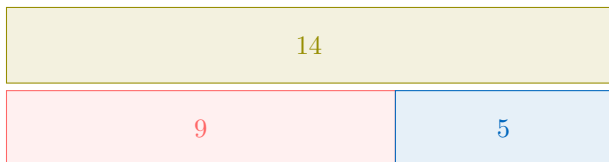
Ex 27:

$$14 - 9 = \boxed{5}$$



Answer:

- $9 + 5 = 14$
- $14 - 9 = 5$



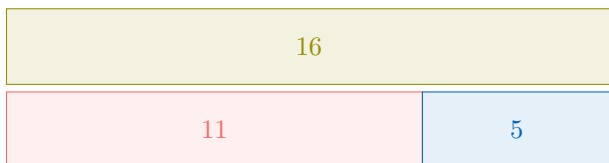
Ex 28:

$$16 - 11 = \boxed{5}$$



Answer:

- $11 + 5 = 16$
- $16 - 11 = 5$



B PROBLEM-SOLVING WITH PART-WHOLE MODELS

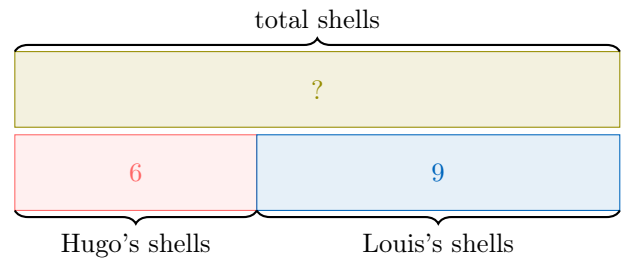
B.1 SOLVING REAL-WORLD PROBLEMS

Ex 29: Hugo and Louis are looking for shells. Hugo found 6 shells, and Louis found 9 shells. How many shells do they have together in total?

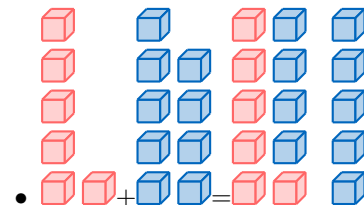
$\boxed{15}$ shells

Answer:

- To find the total number of shells, start with the number of shells Hugo found, then add the number of shells Louis found.



- So, the total number of shells is $6 + 9 = 15$.

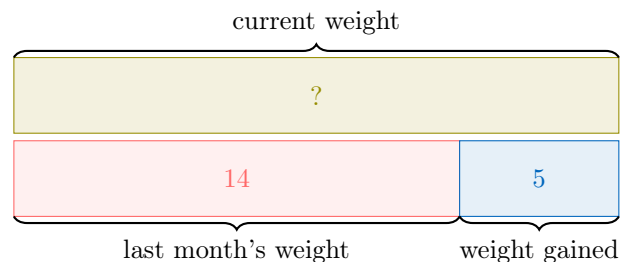


Ex 30: Last month, Louis weighed 14 kilos. This month, he gained 5 kilos. How much does Louis weigh now?

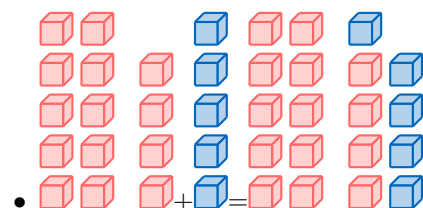
$\boxed{19}$ kilos

Answer:

- To find Louis's current weight, start with last month's weight, and then add the weight gained this month.



- So, Louis's weight is now $14 + 5 = 19$ kilos.

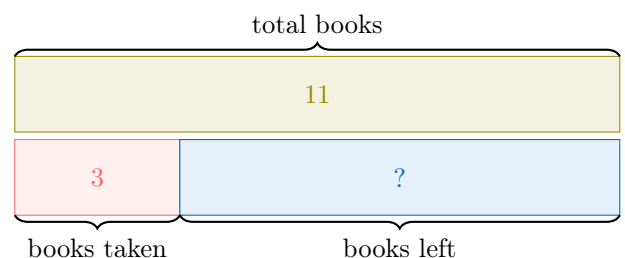


Ex 31: A bookshelf has 11 books. You take 3 books to read. How many books are left on the bookshelf?

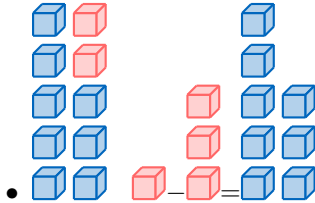
$\boxed{8}$ books

Answer:

- Start with the total of 11 books and subtract the 3 books that you took.



- The books left are $11 - 3 = 8$



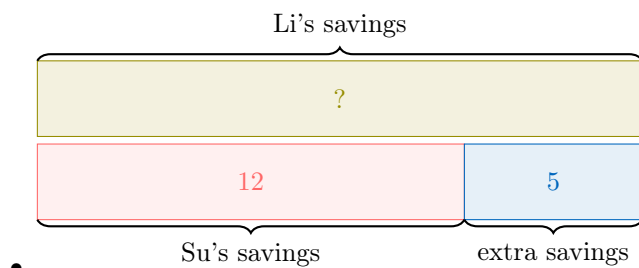
Ex 32: Su has saved 12 dollars from her allowance. Li has saved 5 dollars more than Su.

How much money has Li saved?

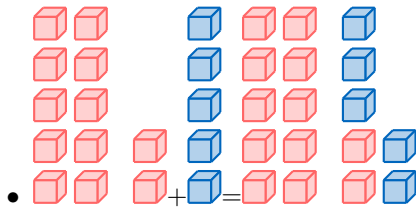
17 dollars

Answer:

- To find the amount Li has saved, start with the amount Su saved, and add the extra amount Li saved.



- So, the total savings for Li is $12 + 5 = 17$ dollars.

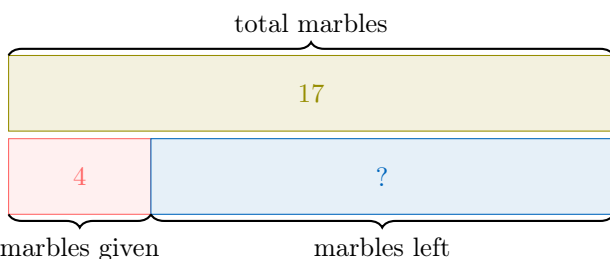


Ex 33: You have 17 marbles. You give 4 marbles to a friend. How many marbles do you have left?

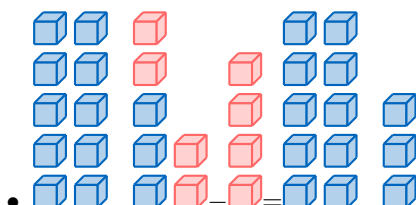
13 marbles

Answer:

- Start with the total of 17 marbles and subtract the 4 marbles that you gave away.



- The marbles left are $17 - 4 = 13$



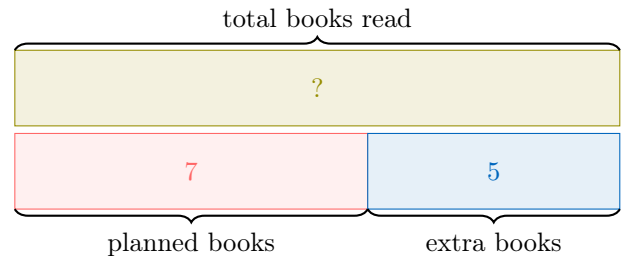
Ex 34: During the holiday, Anjelaï read 5 more books than the 7 books she had planned to read.

How many books did she read in total?

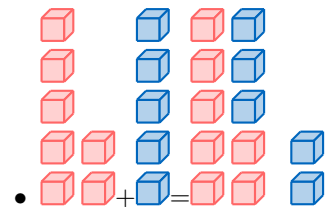
12 books

Answer:

- To find the total number of books Anjelaï read, start with the 7 books she planned to read and add the 5 extra books she read.



- So, the total number of books she read is $7 + 5 = 12$ books.



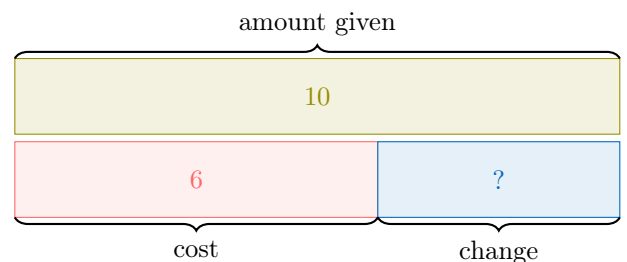
Ex 35: You buy something for 6 dollars. You give the seller a 10 dollar bill.

How much change will you get back?

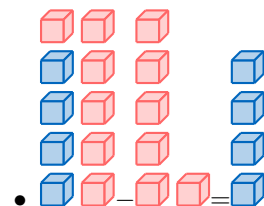
4 dollars

Answer:

- Start with the total amount given, which is 10 dollars, and subtract the cost of 6 dollars.



- The change you get back is $10 - 6 = 4$ dollars.

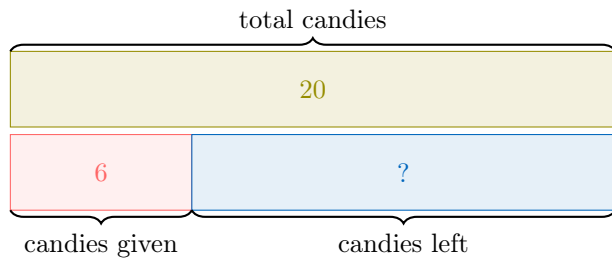


Ex 36: You start with 20 candies. You give 6 candies to a friend. How many candies do you have left?

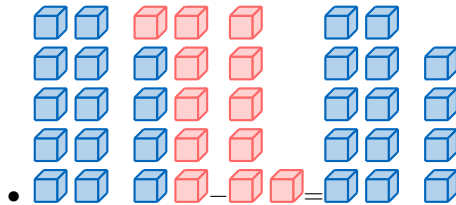
14 candies

Answer:

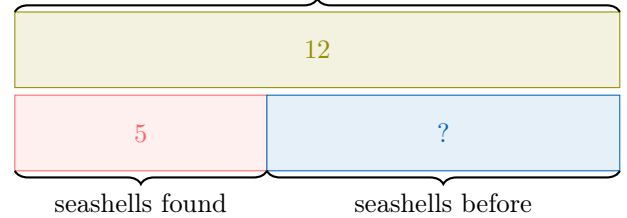
- Start with a total of 20 candies and subtract the 6 candies you gave away.



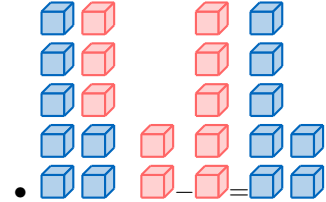
- The candies left are $20 - 6 = 14$



total seashells



- The seashells she had before are $12 - 5 = 7$.



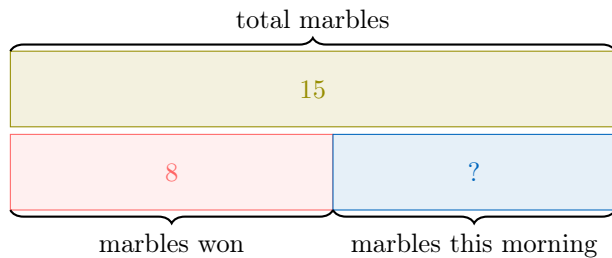
Ex 37: Li won 8 marbles during recess. Tonight, he has 15 marbles.

How many marbles did he have this morning?

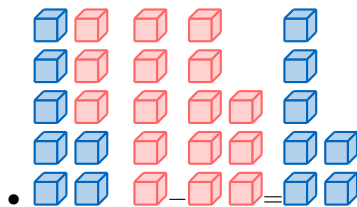
7 marbles

Answer:

- Start with the total number of marbles Li has now, which is 15 marbles, and subtract the 8 marbles he won.



- The marbles he had this morning are $15 - 8 = 7$.



Ex 38: Emma found 5 seashells at the beach in the afternoon. Now she has 12 seashells.

How many seashells did she already have before going to the beach?

7 seashells

Answer:

- Start with the total number of seashells Emma has now, which is 12, and subtract the 5 seashells she found.