Let's reduce by subtraction

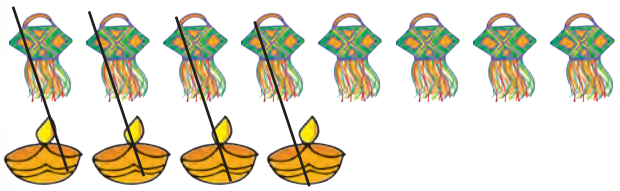
5 − 3 = ☐

Kshitij had 5 cups. He gave 3 cups to Aanchal. How many cups are left with Kshitij ?

Units	
5	Cups with Kshitij
− 3	Cups given to Aanchal
☐	Cups left with Kshitij

Subtraction by pairing off.

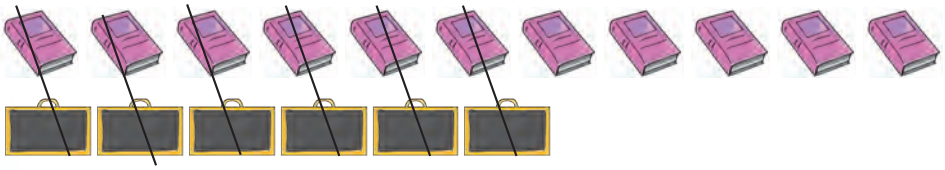
- There are 8 paper lanterns and 4 lamps. How many more lanterns are there than the lamps ?



$$\begin{array}{r} 8 \\ -\ 4 \\ \hline \boxed{4} \end{array}$$

There are 4 more lanterns than there are lamps.

- There are six slates and 11 books. By how many is the number of slates less than the number of books ?



$$\begin{array}{r} \square \\ -\ \square \\ \hline \square \end{array}$$

There are ☐ fewer slates than there are books.

- There are 8 strawberries and 6 pomegranates. How many more strawberries are there ? Let us subtract to find the answer.

$$\begin{array}{r} 8 \\ -\ 6 \\ \hline \boxed{2} \end{array}$$

Hence, there are two more strawberries than pomegranates.
Or, there are 2 fewer pomegranates than strawberries.

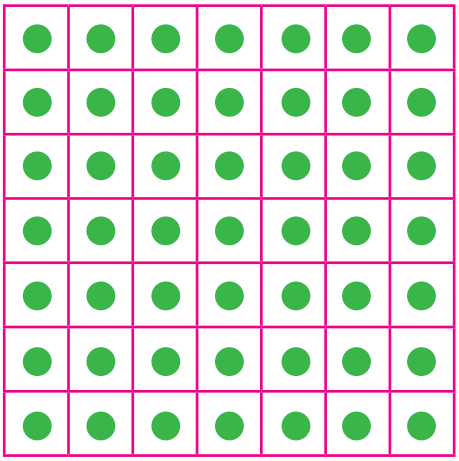
Subtraction by counting backward

Try playing the game given below.

I have this chart. Let us place 49 blocks on it. Pick off 5 or less than 5 blocks at a time. You will get one chance at a time, but you cannot pick off zero blocks.

The one who has to pick up the last block, loses the game.

Rama started the game. Counting backward from 49 she picked up 4 blocks. 45 blocks are left. Now it is Yash's turn to pick up blocks. Playing on like this, Yash picked up the last block. So, Rama won.



At first there were	Picked off	Remaining
49	4 (Rama)	45
45	5 (Yash)	40
40	5 (Rama)	35
35	4 (Yash)	31
31	3 (Rama)	28
28	5 (Yash)	23

At first there were	Picked off	Remaining
23	5 (Rama)	18
18	5 (Yash)	13
13	5 (Rama)	8
8	4 (Yash)	4
4	3 (Rama)	1
1	1 (Yash)	0

Suresh and Ramesh decided to make Diwali greeting cards. They had to bring the required materials. Suresh had 9 rupees. Ramesh also brought some. Altogether they had 14 rupees. How many rupees did Ramesh bring ?

Rama : So we must subtract 9 from 14.

Yash : I drew 14 circles and crossed out 9. Circles left are 5. It means that Ramesh brought 5 rupees.

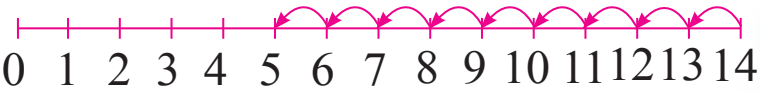
Rama : I counted numbers forward from 9 up to 14. There were 5 numbers. My answer is 5 too.

Discuss whose method is the easier one.

We can use the number line to carry out a subtraction by counting either backward or forward. Let us see the subtraction 14 - 9.

9 + 5 = 14. Therefore, 14 - 9 = 5

14 - 9 = 5.



In the first diagram above, there were 5 jumps towards the right from 9 to 14. In the second, 9 jumps were taken towards the left from 14, which stopped at 5. Both the methods give us the answer 5. Thus, subtraction can be done by both methods using the number line. Practise this by carrying out the following subtractions.

(1) 12 - 8 = ☐ (2) 32 - 1 = ☐ (3) 15 - 10 = ☐

(4) 43 - 2 = ☐ (5) 13 - 11 = ☐ (6) 39 - 3 = ☐

(7) 20 - 18 = ☐ (8) 44 - 40 = ☐ (9) 11 - 2 = ☐

While carrying out the subtraction 43 - 2, which is easier ? Counting the jumps towards the right from 2 to 43, or counting two jumps towards the left from 43 ?

While carrying out the subtraction 44 - 40, what is easier ? Counting 40 jumps towards the left of 44 or count jumps from 40 to 44 to the right ?

R36X5S