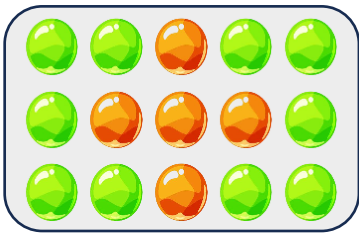# Decomposing the numbers

Decomposing the Numbers

➤ Decomposing a number is the process of breaking it down into smaller parts.

➤ In place value, it involves breaking the number down into its individual digits and representing each digit by its place value.

For example,

There are totally 15 balls are there.

In that 15 balls, there are

10 greens balls

5 orange balls.

15 = 10 + 5

So, 15 is breaking into smaller parts that are 10 and 5

15 is decomposed as 10 and 5

Example: Consider the number 14.

It has two digits 1 and 4.
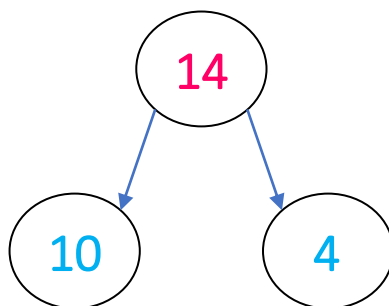
The digit 1 is in the tens place and the digit 4 is in the ones place.

That means 14 has 1 ten and 4 ones.

We can write 14 as

$$14 = 10 + 4$$

So 14 can be decomposed as 10 + 4

Tens   Ones

14
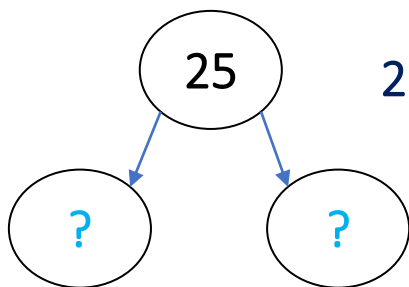
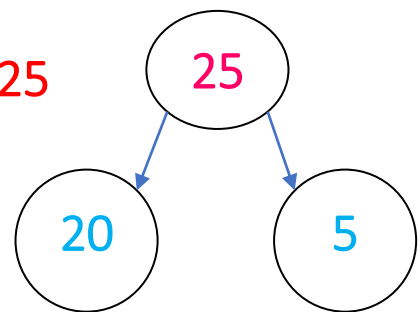10   4

1   4

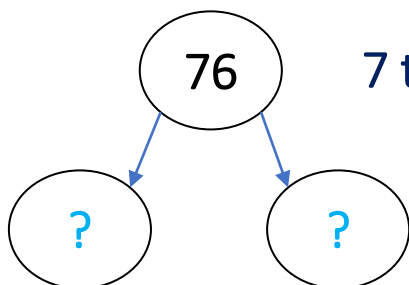# Decompose the numbers in the number bond

Example 1:

25

? ?

2 tens and 5 ones makes 25

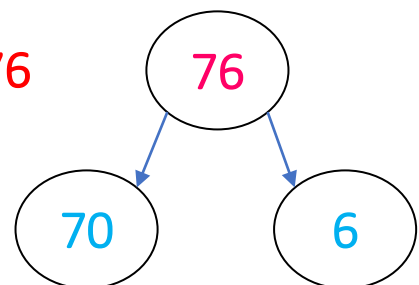20 and 5 makes 25

20 + 5 = 25

25

20 5

Example 2:

76

? ?

7 tens and 6 ones makes 76

70 and 6 makes 76

70 + 6 = 76

76

70 6

Decomposing a number using the addends method

In this method, we separate or break down a number into different addends

For example,

Consider the number 8.

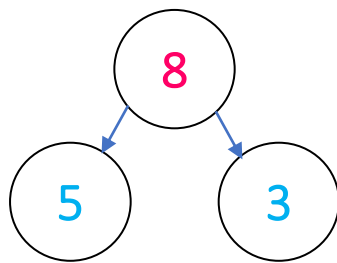To decompose the number 8 into its addends you have to think about how you can create this number using smaller numbers.
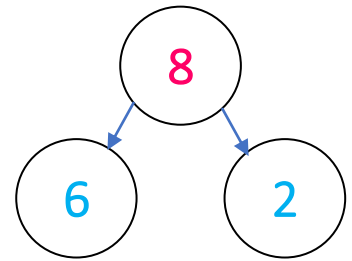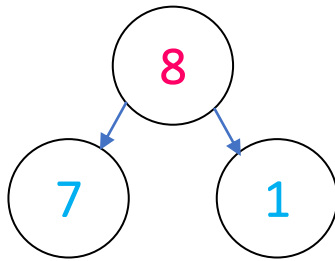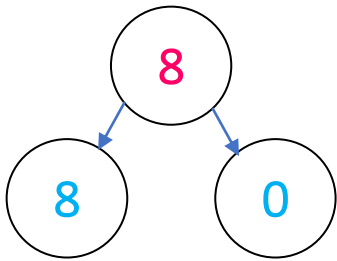
$$8 = 0 + 8$$
$$8 = 1 + 7$$
$$8 = 2 + 6$$
$$8 = 3 + 5$$
$$8 = 4 + 4$$

Decomposing the Numbers using number bonds

These are different ways to decompose the **number** 8.
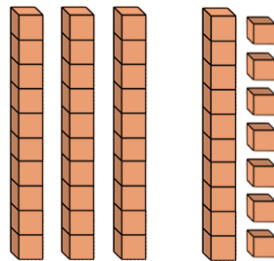
8 → 8, 0

8 → 7, 1

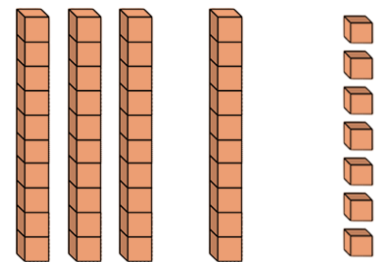8 → 6, 2

8 → 5, 3

8 → 4, 4
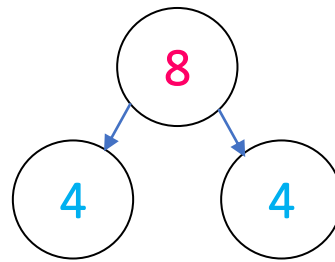
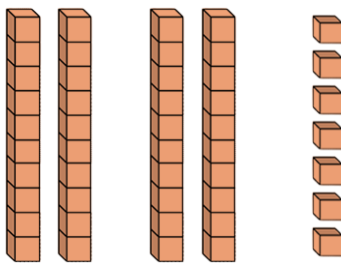## Let us decompose the number 47
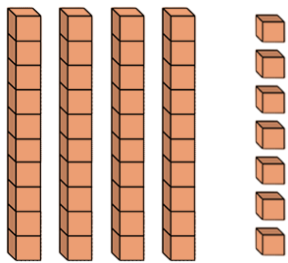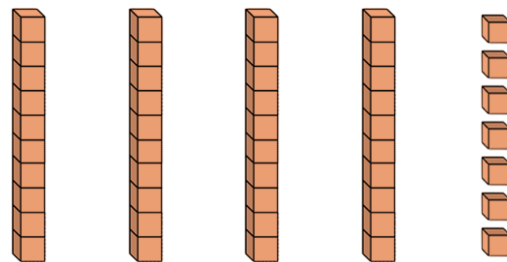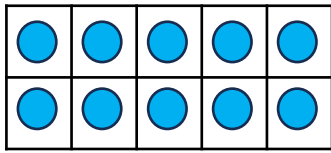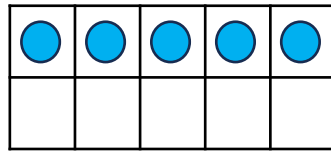
40   7

30   17

30   10   7

20   20   7

10   10   10   10   7

Example 1: Decompose the number 15
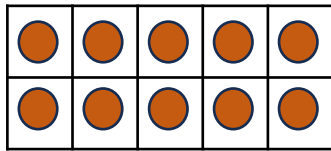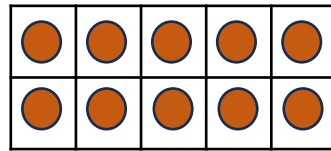

10

5

15 can be decomposed as 10 and 5.

10 and 5 gives 15.

15 = 10 + 5

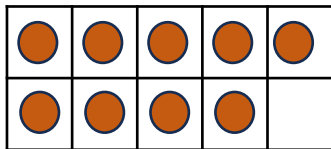**Example 2:** Decompose the number 29

10

10

9

29 can be decomposed as 20 and 9
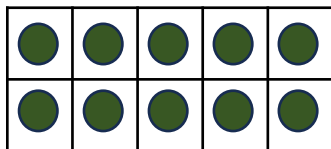
20 and 9 gives 29

20 + 9 = 29
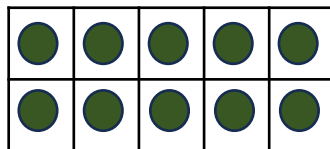
Example 3: Decompose the number 48
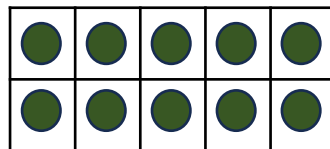
48 can be decomposed as 40 and 8

40 and 8 gives 48

40 + 8 = 48

10

10

10

10

8