

01

At a hospital, 42 people are queuing for covid-19 vaccination.

- i) Harsh is standing at the 16th position counting from the front. What position is Harsh located if counting from the end?
- ii) Varish is standing at the 7th position counting from the end. How many are there standing between Harsh and Varish?



$$\text{i) } 42 - 16 + 1 = 27^{\text{th}}$$

$$\text{ii) } 42 - 16 - 7 = 19^{\text{th}}$$

02

I wrote all the numbers from 6 to 33. What is the total number of digits I have written?



$$6 - 10 \rightarrow 4 \qquad 4$$

$$10 - 19 \rightarrow 10 \times 2 = 20$$

$$20 - 29 \rightarrow 10 \times 2 = 20$$

$$30 - 33 \rightarrow 4 \times 2 = 8$$

52

NOTE: We need 2 digits to write a two digit number

03

I am thinking of a 2-digit odd number. The sum of the digits in the tens place and the ones place is 6. The digit in the tens place is 4 more than the digit in the ones place. What is the number I am thinking of ?



Tens	Ones
5	1

⇒ 51

$$(1 + 4 = 5)$$

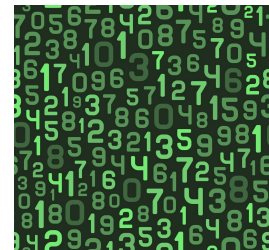
Sum of the digits in the tens place and ones place

$$= 5 + 1 = 6$$

The number I am thinking of is 51

04

Shyam started counting numbers by 2 starting with number 1 upto 25. i.e., 1, 3, 5, But Shyla started counting back the numbers by 3 from 25 upto 1. i.e., 25, 22, 19, What number did they both count and how many ?



Shyam : 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25

Shyla : 25, 22, 19, 16, 13, 10, 7, 4, 1

Numbers counted by both are 1, 7, 13, 19 and 25

There are 5 in total

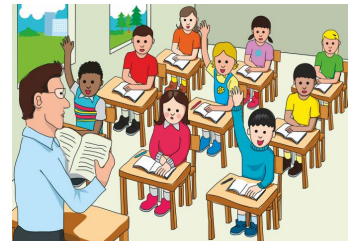
05

- A B C** is a 3-digit number. A is 2 times of B and C is 3 more than A.
- (a) Write down all the 3-digit numbers satisfying the above 2 conditions.
- (b) If $B + C$ is double of A, what is the 3-digit number **A B C** ?

1. Let us try using :
- (i) $B = 1, A = 2 \times 1 = 2, C = 2 + 3 = 5, 215$
- (ii) $B = 2, A = 2 \times 2 = 4, C = 4 + 3 = 7, 427$
- (iii) $B = 3, A = 3 \times 2 = 6, C = 6 + 3 = 9, 639$
- (iv) $B = 4, A = 4 \times 2 = 8, C = 8 + 3 = 11$
- (a) The 3-digit numbers are 215, 427 and 639
- (b) By trial and error, the 3-digit number A B C is 639
($3 + 9 = 12$, which is double of 6)

06

On a class test, every one took the test and every one got a different grade. Anusha's grade was both the 12th highest grade and the 12th lowest grade in the class. How many students were in this class ?



- \Rightarrow There are $11 + 11 = 22$ children in the class besides Anusha
- \Rightarrow $22 + 1 = 23$ is the total number of students in the class