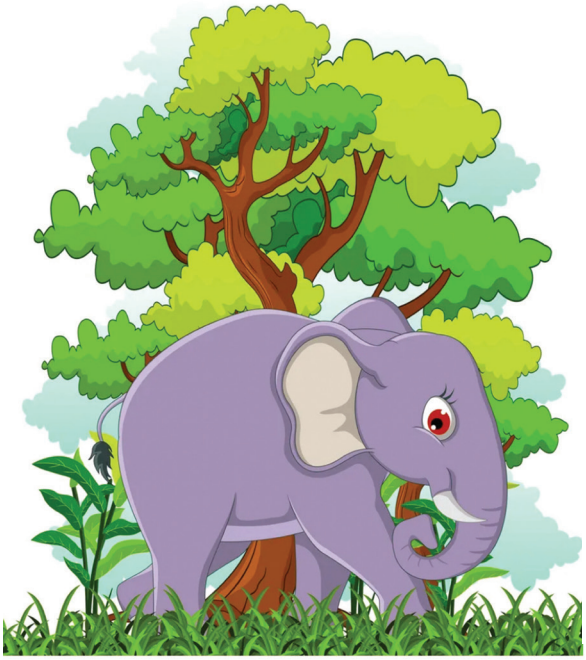
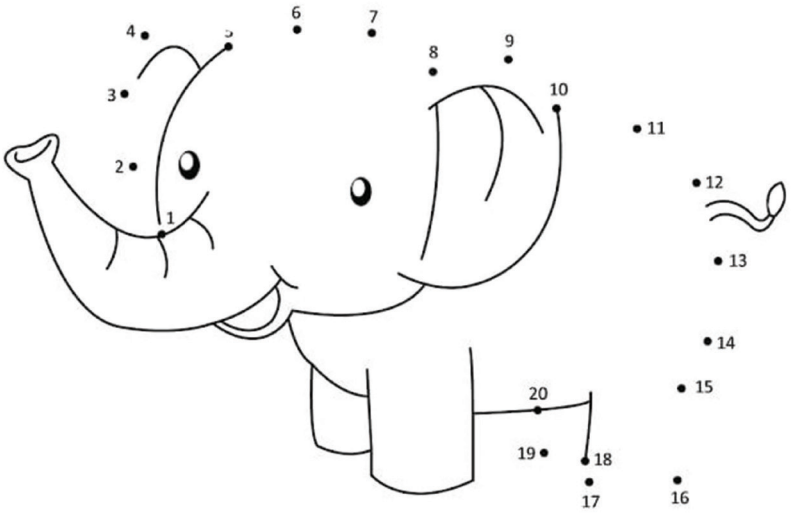
Numbers up to 20

Warm Up

KINESTHETIC

Join the dots from 1 to 20 to find out the special animal. Can you name this animal? Colour it also.





Tip for the Teacher

Do you like animals?

- Can you name some pet animals?
- How can we take care of these animals?
- How many of you are having pets at home?

Curricular Goals

- count and read numbers upto 20
- count numbers forward and backward
- represent numbers upto 20 on the abacus
- identify before, after, and between numbers
- compare and order numbers

UNDERSTANDING ZERO (0)

Riya has **2 puppies**.

Now, Riya is left with **no puppies** means zero puppies.

She gave **1 puppy** to Aman and other to Neha.

Zero means nothing. Zero is written as 0.

Let's try!

(a) Circle the flowers with 0 butterfly.

(b) Circle the vase with no flower.

(c) Circle the box with 0 smile.

(d) Circle the bowl with no fish.

Tip for the Teacher

When we have 'no object' to count we say we have 'zero'.

FORWARD AND BACKWARD COUNTING

1. I can count forward upto 20.

1									

2. I can count backward from 20.

20									

PLACE VALUE

Tens and Ones

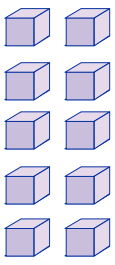
The numbers 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are one digit or single digit numbers. They are written in **'ones'** place.

When we use 1 and 0 to write 10, we need two places. So, 10 is a two-digit number.

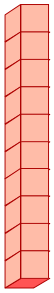
We write **'0'** in the **'ones'** place and 1 in a new place towards left which is called **'tens'** place.

Tens	Ones
1	0

= 10 ones =



1 ten



BUILDING NUMBERS

Let's move forward to learn the placement of 2 digit numbers. Count and write the numbers in blank spaces.

Tens and Ones

10 ones make 1 ten.

1. **1 ten and 1 ones is 11.**

Tens	Ones
1	1

11 — Eleven

10 and 1 more = 1 ten and 1 ones

2. **1 ten and 2 ones is 12.**

Tens	Ones
1	2

10 and 2 more = 1 ten and 2 ones

3. **1 ten and 3 ones is 13.**

Tens	Ones
1	3

10 and 3 more = 1 ten and 3 ones

4. **1 ten and 4 ones is 14.**

Tens	Ones
1	4

10 and 4 more = 1 ten and 4 ones

5. **1 ten and 5 ones is 15.**

Tens	Ones
1	5

10 and 1 more = 1 ten and 5 ones

6. **1 ten and 6 ones is 16.**

Tens	Ones
1	6

10 and 6 more = 1 ten and 6 ones

7. **1 ten and 7 ones is 17.**

Tens	Ones
1	7

10 and 7 more = 1 ten and 7 ones

8. **1 ten and 8 ones is 18.**

Tens	Ones
1	8

10 and 8 more = 1 ten and 8 ones

9. **1 ten and 9 ones is 19.**

Tens	Ones
1	9

10 and 9 more = 1 ten and 9 ones

10. **1 ten and 10 ones is 20.**

Tens	Ones
2	0

10 and 10 more = 1 ten and 10 ones

Break Zone 1

1. Count and write numbers and also their number names.

(a)

_____ + _____ = ☐ ☐

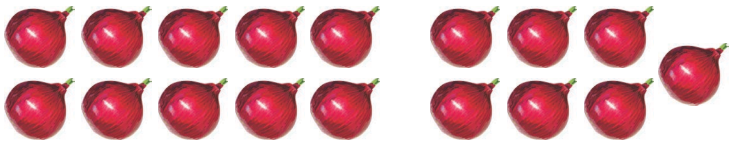
(b)

_____ + _____ = ☐ ☐

(c)

_____ + _____ = ☐ ☐

(d)



_____ + _____ = ☐ ☐

Find the Error

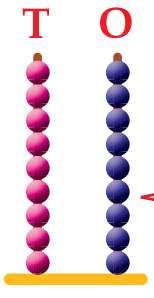
HOTS

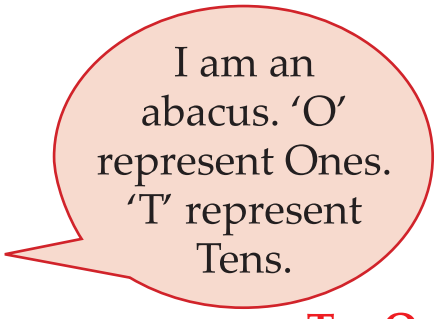
21st CENTURY SKILLS
Analytical Thinking

2. Sonika writes **20 as twoten**. Is she correct? Can you help her to write the correct number name?

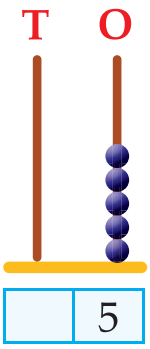
REPRESENTING NUMBERS ON THE ABACUS

This is an abacus. It is used for counting and reading numbers. It has two spikes- ones spike (O) and tens spike (T). Each of the spike can hold a maximum of nine beads.



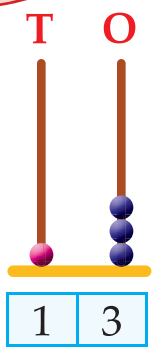


Beads placed on spikes represent numbers.



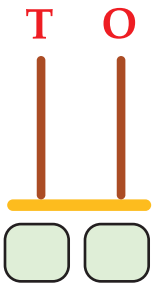
If you have 5 pencils, you can represent it with 5 beads on Ones spike.

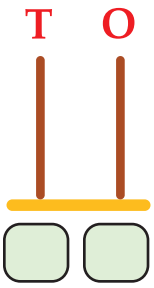
If you have 13 lollipops you can represent it with 3 beads on Ones spike and 1 bead on Tens spike.

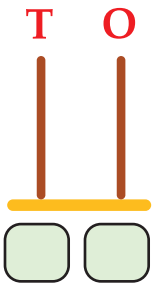


Break Zone 2

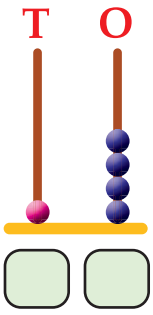
1. Represent the following numbers on the given abacus.

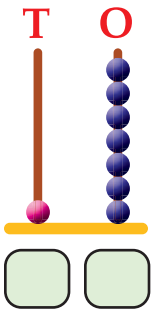
(a) 18 

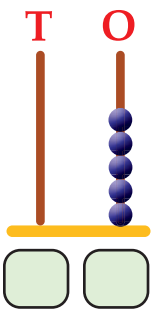
(b) 12 

(c) 7 

2. Read the numbers on the abacus and write them in the given boxes.

(a) 

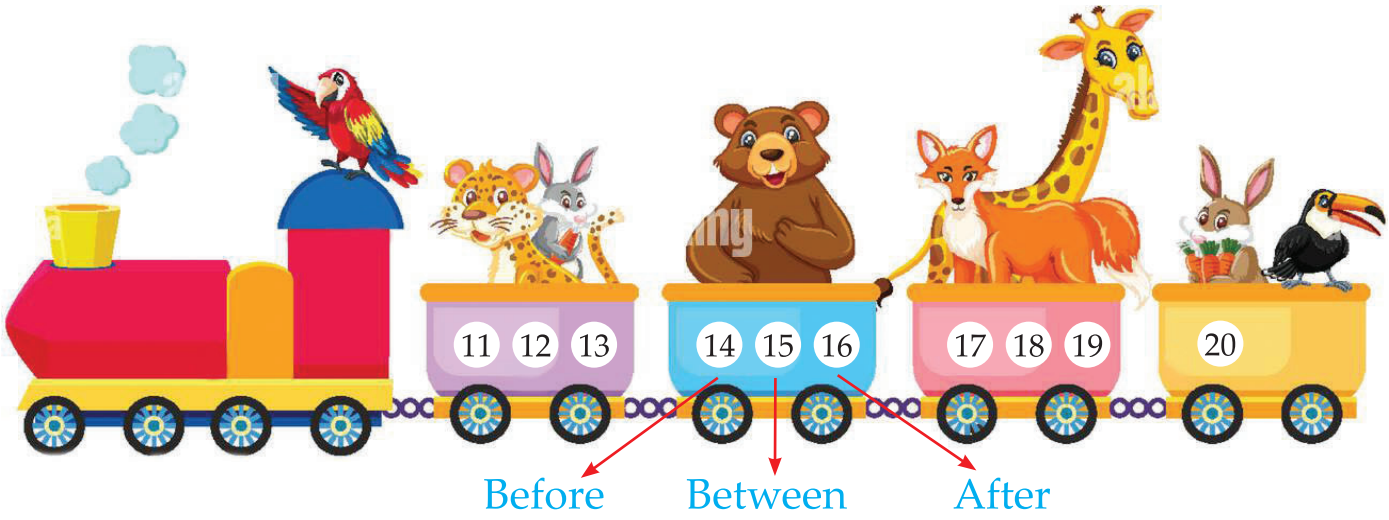
(b) 

(c) 

Discuss

Ask students to think if it is possible to make numbers beyond 20 on the abacus. Suggest ways in which it can be done. Check student's response.

BEFORE, BETWEEN AND AFTER



- Look at the number train. It shows, 15 is between 14 and 16.
- 14 is to the left of 15, it means 14 comes before 15.
- 16 is to the right of 15, it means 16 comes after 15.

Break Zone 3

Observe the number strip and answer the given questions.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

1. What comes after?

(a) 5 ____ (b) 11 ____ (c) 16 ____

(d) 19 ____ (e) 8 ____ (f) 14 ____

2. What comes before?

(a) ____ 4 (b) ____ 18 (c) ____ 7

(d) ____ 10 (e) ____ 13 (f) ____ 20

3. What comes between?

(a) 9 ____ 11 (b) 3 ____ 5 (c) 12 ____ 14

(d) 17 ____ 19 (e) 8 ____ 10 (f) 18 ____ 20

COMPARING NUMBERS

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Look at the number chain:

Compare the number of digits in the following ways.

A. The number that is closer to zero is **the smaller number**.

4 is smaller than 9 or 4 < 9.

B. The number that is further away from zero is **the bigger number**.

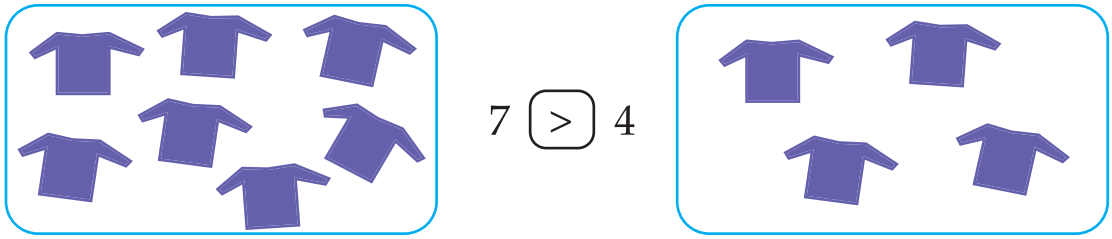
16 is the bigger than 11 number or 16 > 11.

C. The number with less digit is smaller.

9 is smaller than 15 or 9 < 15.

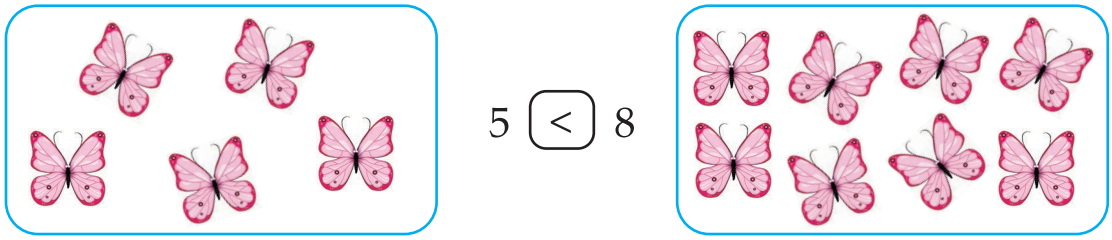
Look at some examples.

a.



7 > 4

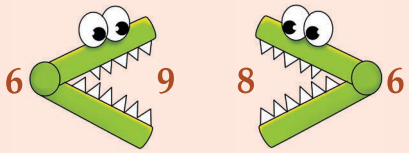
b.



5 < 8

Remember

Always remember that in symbols '<' '>' the mouth opens towards the bigger number.



Tip for the Teacher

If the numbers are same we use '=' sign. eg. 15 = 15.

Break Zone 4

1. Colour the bigger number Red and smaller number Blue.

(a) 11 14 **(b)** 17 10 **(c)** 20 15

(d) 13 18 **(e)** 7 17 **(f)** 5 7

(g) 18 16 **(h)** 16 11 **(i)** 19 12

2. Write the smallest number in the circle.

(a) 18 / 12 ◯ 8 / 19 **(b)** 5 / 9 ◯ 3 / 2 **(c)** 9 / 10 ◯ 16 / 19

(d) 4 / 19 ◯ 17 / 14 **(e)** 20 / 12 ◯ 7 / 11 **(f)** 10 / 5 ◯ 20 / 15

3. Write the biggest number in the circle.

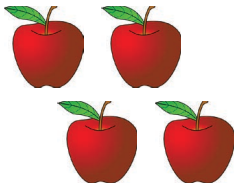
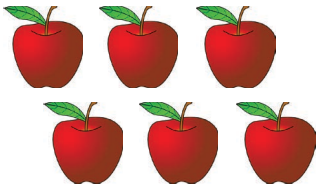
(a) 8 / 5 ◯ 6 / 7 **(b)** 5 / 14 ◯ 13 / 16 **(c)** 19 / 9 ◯ 16 / 12

(d) 8 / 7 ◯ 16 / 14 **(e)** 7 / 16 ◯ 15 / 18 **(f)** 14 / 11 ◯ 17 / 9

4. Fill in the blanks using <, = or >.

(a)  ☐ 

(b)  ☐ 

(c)  ☐ 

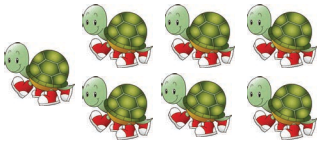
(d)  ☐ 

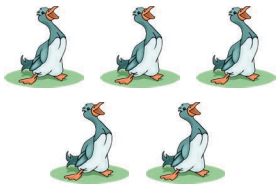
5. Count and write the number of objects in each set. Then, arrange the numbers in increasing order.

(a)  ☐

 ☐

☐ < ☐ < ☐

 ☐

(b)  ☐

 ☐

☐ < ☐ < ☐

 ☐

Challenge Yourself

HOTS

21st CENTURY SKILLS
Logical Reasoning

(a) While counting from 1 to 20, how many numbers are more than number 9?

(b) How many odd numbers are less than number 15?

ORDER OF NUMBERS

Order of numbers means arranging numbers or objects in some sort of order.

- From smallest to biggest (Increasing order)
- From biggest to smallest (Decreasing order)

Observe the given example:

1.

The fishes are arranged in Increasing order of their size.

2.

The balls are arranged in Decreasing order of their size.

3.

The numbers are arranged in Increasing order of their values.

4.

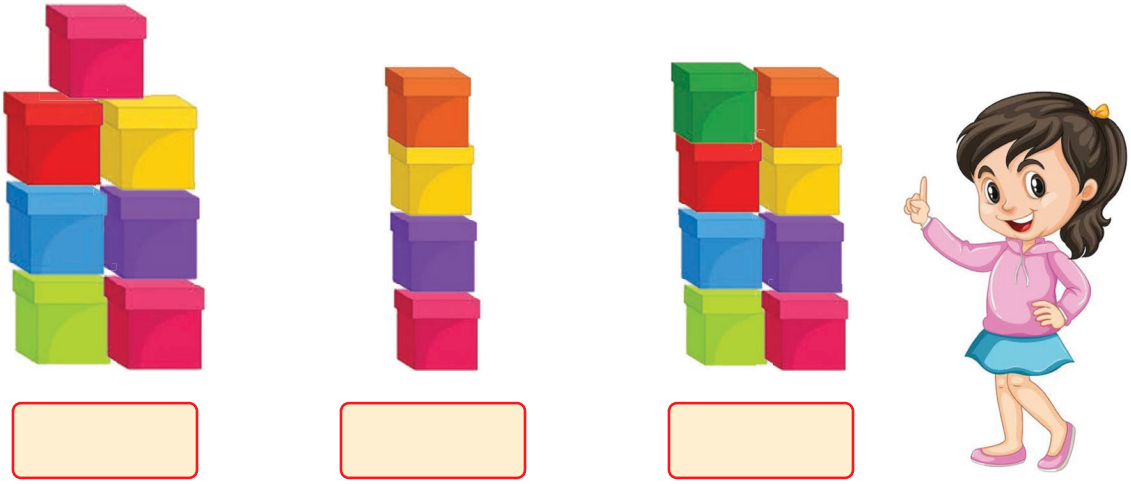
The numbers are arranged in Decreasing order of their values.

Tip for the Teacher

Give number cards to the students and ask them to arrange the cards from smallest to largest numbers and vice versa. Start with three cards first and then ask them to arrange five or more number cards.

Break Zone 5

1. A group of friends while playing built some towers.

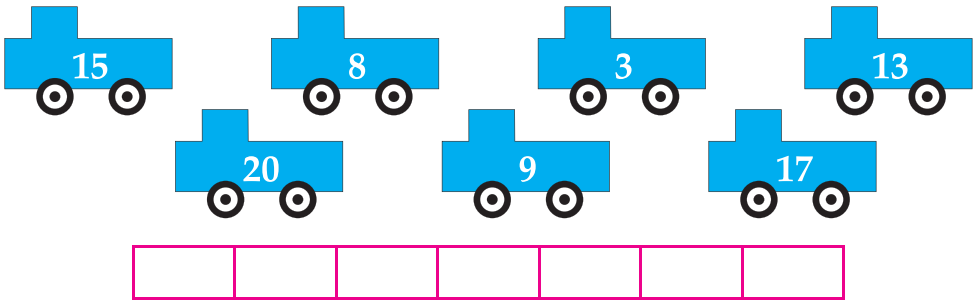


(a) Tick (✓) the tallest tower.

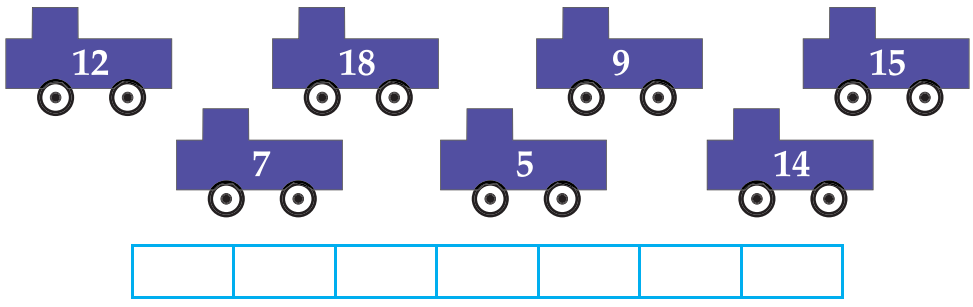
(b) Which tower used the most number of blocks?
Write the number of blocks used in it.

(c) Which tower used the least number of blocks?
Write the number of blocks used in it.

2. Write the numbers in increasing order.



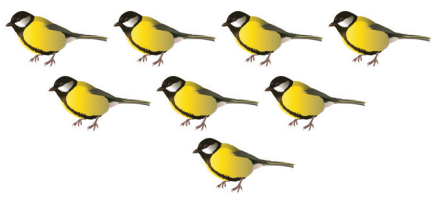
3. Write the numbers in decreasing order.



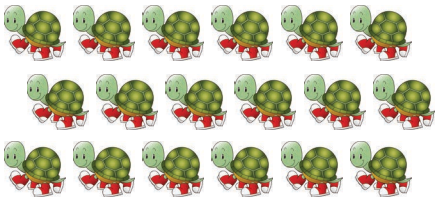
Check Your Understanding

1. Count and write the number and the corresponding number names.

(a)

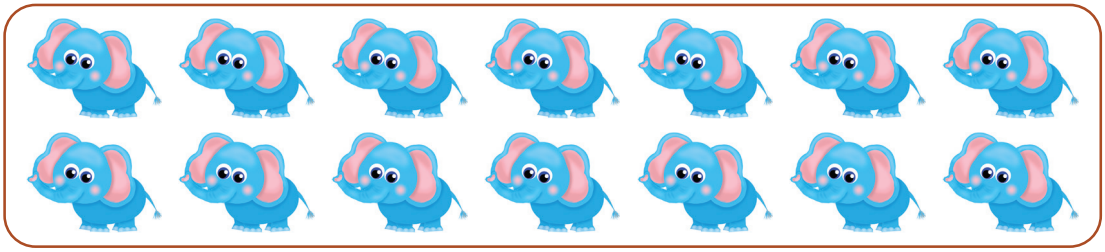


(b)

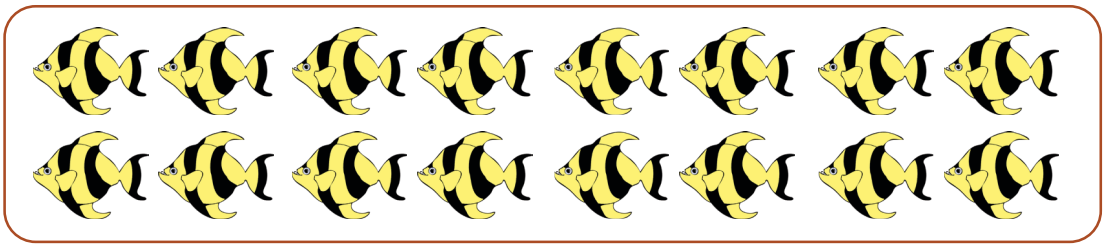


2. Read the number in the box and circle that many objects.

(a) 9

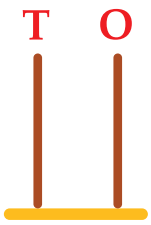


(b) 12

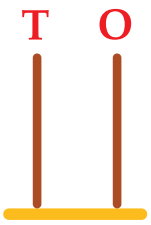


3. Represent the numbers on the abacus.

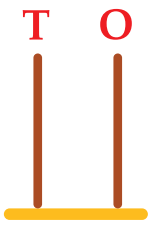
(a) 18



(b) 12

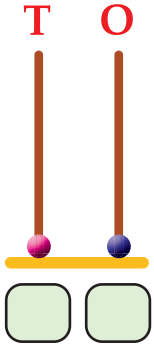


(c) 7

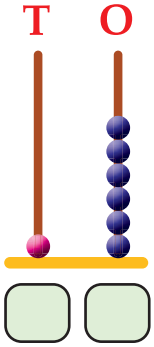


4. Count and write the number shown on the abacus.

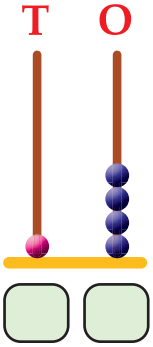
(a)



(b)



(c)



5. Write the number that comes just before and just after the given numbers.

(a) 

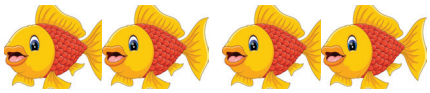
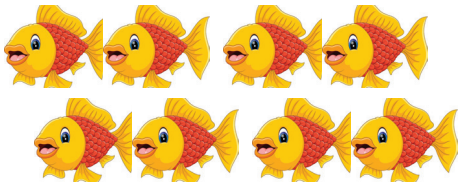
(b) 

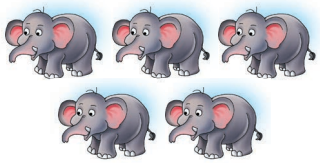
(c) 

(d) 

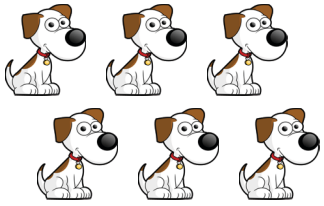
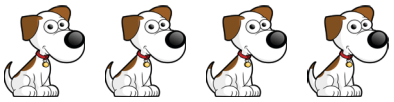
6. Count the objects in the two sets and compare them using <, > or =.

(a)  ☐ 

(b)  ☐ 

(c)  ☐ 

(d)  ☐ 

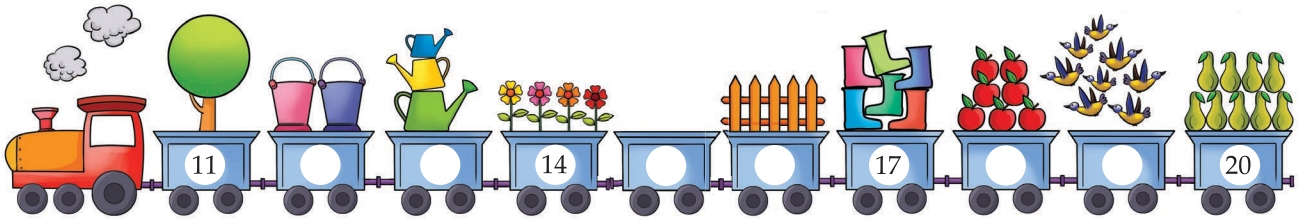
(e)  ☐ 

7. Arrange Amina's daily routine in the correct order.

☐ ☐ ☐ ☐

8. Fill in the blanks to complete the number train.



STEAM Link

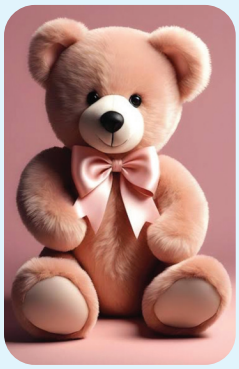
TEDDY IS HUNGRY

Incode the story to find out what Teddy likes to eat.

1	2	3	4	5	6	7
a	e	i	o	u	f	g
8	9	10	11	12	13	14
h	l	p	r	s	n	y

Use the table to decode the story. Replace the numbers with the letters below them.

- Teddy likes h o n e y a lot.
  (8) (4) (13) (2) (4)
- Teddy treats himself with ___ ___ ___ ___ sometimes.
  (6) (3) (12) (8)
- Teddy relishes green ___ ___ ___ ___ ___ ___.
  (7) (11) (1) (10) (2) (12)
- Teddy loves drinking ___ ___ ___ ___ ___ juice to quench his thirst.
  (1) (10) (10) (9) (2)



Tip for the Teacher

Form pairs of students and ask them to work with each other in the class. Motivate students to develop empathy towards their classmates.

Indian Heritage

Children, Indian currency notes are available in following denominations upto 20. Can you write the value of these notes and their number names.

☐ _____ ☐ _____ ☐ _____ ☐ ____

Math Lab Activity

1. Take some kidney beans and chick peas.
2. Assume kidney beans as tens and chick peas as ones.
3. Paste them on a sheet in sets to make numbers from 1 to 20.

Project - Fun Time

- Play a bowling game.
- Set up some empty bottles.
- Roll a ball to knock them over.
- Count the bottles that fell down and that are still up.