

ACTIVITY-2

WHOLE NUMBERS

COMMUTATIVE PROPERTY OF WHOLE NUMBERS

1. **What we have to do?**

To show that addition is commutative under whole numbers.

2. **What is required?**

Pack of bindis of two different colours (say black and maroon) and geometry box.

3. **How much time required for this activity?**

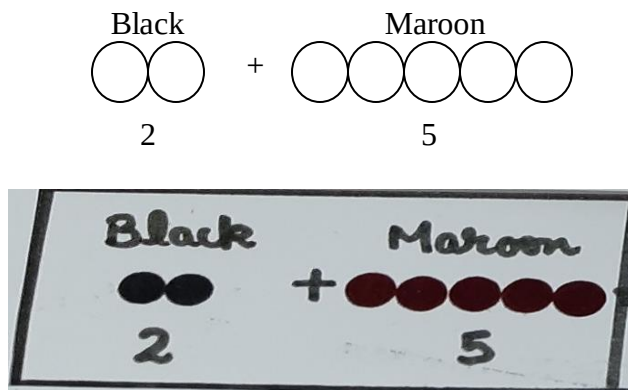
30-40 minutes.

4. **What do you need to know?**

Simple addition.

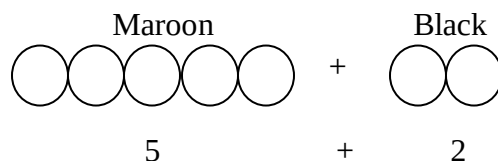
5. **How will you proceed?**

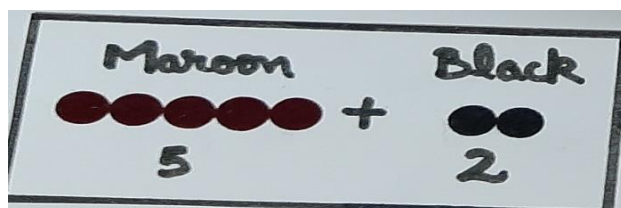
- Let us verify the commutative property of addition $a + b = b + a$, where a and b are any two whole numbers.
- Consider, a as 2 and b as 5.
- Take two black bindis to represent the number 2 and five maroon bindis to represent the number 5.
- Interlock the two given blocks with black bindis and five blocks with maroon bindis to represent the sum $2 + 5$ as shown in Fig.1.



(Fig.1)

- Similarly, now interlock the five given blocks with maroon bindis and two blocks with black bindis to represent the sum $5 + 2$ as shown in Fig.2.





(Fig.2)

6. What have you observed?

- Write the addends of Fig.1 and Fig.2 in the order bindis are interlocked.
Fig.1 = ____ + ____
Fig.2 = ____ + ____
- Is the sum of Fig.1 and Fig.2 same?

7. What have you learnt?

8. What you have to do as extended activity?

- Verify the Commutative Property of addition for whole numbers using beads/stones (take $a = 4$ and $b = 6$).

9. Real Life Application:

The Commutative Property of addition is associated with binary operations and functions.