

**Properties of subtraction**

**Closure property:**

For any two whole numbers, a and b, if a  > b then a – b is a whole number and if a < b then a – b is never a whole number. Closure property is not always applicable to subtraction.

E.g. 150 – 100 = 50, is a whole number but 100 – 150 = -50 is not a whole number.

**Commutative property:**For any two whole numbers a and b, a – b ≠  b – a . Hence subtraction of whole number is not commutative.

E.g  16 – 7 = 9 but  7 – 16 ≠ 9

**Associative property:**

For any three whole numbers a, b and c, (a – b) – c ≠ a – (b – c). Hence  subtraction of whole numbers is not associative.

E.g.  25 – (10 – 4) = 25 – 6 = 19

       (25 – 10) – 4 = 15 – 4 = 11

This means that 25 – (10 – 4) ≠ (25 – 10) – 4