

Transposition

While solving an equation, we change the sides of the numbers. This process is called transposing. While transposing a number, we change its sign or reverse the operation.

Let us understand with some examples:

Example: Find the solution of $5y + 2 = 22$.

Solution: We need to find y , so isolate it. Hence, we transpose the number 2 to the other side. The equation becomes,

$$5y = 22 - 2$$

$$5y = 20$$

Now taking 5 to the other side, we reverse the operation of multiplication to division.

$$y = 20/5 = 4$$

Example: Find the solution of equation: $\frac{3x}{2} + 4 = 13$.

Solution: We need to find x , so isolate it. Hence, we transpose the number 4 to the other side. The equation becomes

$$\frac{3x}{2} = 13 - 4$$

$$\frac{3x}{2} = 9$$

Now taking 2 to the other side, we reverse the operation of division to multiplication.

$$3x = 9 \times 2$$

$$3x = 18$$

Now taking 3 to the other side, we reverse the operation of multiplication to division.

$$x = 6$$