

# ASSIGNMENT 2

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**Abstract**—This document contains the solution for Assignment 2 (ICSE Class 12 Maths 2018 Q.1(i))

**1(i)** The binary operation  $*$ : $R \times R \rightarrow R$  is defined as  $a*b = 2a+b$  Find  $(2*3)*4$ .

**Solution:** Given,

$$a*b = 2a + b \quad (1)$$

First, we need to find  $2*3$ ,

Substituting  $a=2$  and  $b=3$  in equation(1),

$$2*3 = 2 \times 2 + 3 = 7 \quad (2)$$

Now, we need to find  $7*4$ .

Substituting  $a=7$  and  $b=4$  in equation(1) and using equation(2),

$$7*4 = 2 \times 7 + 4 = 18 \quad (3)$$

Therefore, we have  $(2*3)*4=18$ .