**NUMBER**

**Add**

**Parameters – Object (operand 2)**

**Return – Object (result) – either a Number or Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) + operand 2 (parameter) as either a Complex or Number object

**Subtract**

**Parameters – Object (operand 2)**

**Return – Object (result) – either a Number or Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) - operand 2 (parameter) as either a Complex or Number object

**Multiply**

**Parameters – Object (operand 2)**

**Return – Object (result) – either a Number or Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) \* operand 2 (parameter) as either a Complex or Number object

**Divide**

**Parameters – Object (operand 2)**

**Return – Object (result) – either a Number or Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) / operand 2 (parameter) as either a Complex or Number object

**Less Than**

**Parameters – Object (operand 2)**

**Return – Boolean (result)**

Check if Object parameter is a Complex or Number object

If not, return false

If yes, return operand 1 magnitude (this) < operand 2 magnitude (parameter)

**Greater Than**

**Parameters – Object (operand 2)**

**Return – Boolean (result)**

Check if Object parameter is a Complex or Number object

If not, return false

If yes, return operand 1 magnitude (this) > operand 2 magnitude (parameter)

**@Override**

**Equals**

**Parameters – Object (operand 2)**

**Return – Boolean (result)**

Check if Object parameter is a Number object

If not, return false

If yes, return operand 1 (this) == operand 2 (parameter)

**COMPLEX**

**@Override**

**Add**

**Parameters – Object (operand 2)**

**Return – Object (result) – a Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) + operand 2 (parameter) as either a Complex or Number object

**@Override**

**Subtract**

**Parameters – Object (operand 2)**

**Return – Object (result) – a Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) - operand 2 (parameter) as either a Complex or Number object

**@Override**

**Multiply**

**Parameters – Object (operand 2)**

**Return – Object (result) – a Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) \* operand 2 (parameter) as either a Complex or Number object

**@Override**

**Divide**

**Parameters – Object (operand 2)**

**Return – Object (result) – a Complex object**

Check if Object parameter is a Complex or Number object

If not, return null

If yes, return operand 1 (this) / operand 2 (parameter) as either a Complex or Number object

**Less Than**

**Same Function as Number, does not need to be overridden**

**Greater Than**

**Same Function as Number, does not need to be overridden**

**@Override**

**Equals**

**Parameters – Object (operand 2)**

**Return – Boolean (result)**

Check if Object parameter is a Complex object

If not, return false

If yes, return operand 1 (this) == operand 2 (parameter)