Assignment # 02

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Source Code

```
void main() {
// Conditions:
// 1. Take the XY coordinate and determine in which quadrant the coordinate
point lies.
 dynamic x = -4;
 dynamic y = -5;
 if(x > 0 && y > 0){
  print("Coordinate Point of X and Y is $x and $y lies in First Quadrant");
 else if(x < 0 & y > 0){
  print("Coordinate Point of X and Y is $x and $y lies in Second Quadrant");
 else if(x < 0 \&\& y < 0){
  print("Coordinate Point of X and Y is $x and $y lies in Third Quadrant");
 else if(x > 0 & y < 0){
  print("Coordinate Point of X and Y is $x and $y lies in Fourth Quadrant");
 }
// 2. Take three numbers and find a maximum between three numbers.
int a = 10;
int b = 15;
int c = 8;
if(a > b \&\& a > c){
 print("$a is the Maximum Number");
else if(b > a \&\& b > c){
 print("$b is the Maximum Number");
```

```
}
else{
 print("$c is the Maximum Number");
// Loop:
// 1. Print the multiplication table of a number till 10.
     Example: 2 \times 1 = 2
int table = 13;
for(int i = 1; i \le 10; i++){
 int value = table * i;
 print("$table x $i = $value");
}
// 2. Calculate the sum of first 20 Odd numbers.
 int sum = 0;
for(int j = 1; j <= 19; j = j + 2){
  sum = sum + j;
}
 print("The Sum of first 20 Odd numbers is $sum");
// 3. Calculate the factorial of a number.
    Example: Factorial of 5 is 120.
    Explanation: 1*2*3*4*5 = 120
 int facNum = 8;
 int factorial = 1;
for (int k = 1; k \le facNum; k++) {
 factorial = factorial * k;
 print("The Factorial of a Number $facNum is $factorial");
// 4. Check if the given number is prime or composite.
int number = 7;
for(int y = 2; y \le number / y; y++){
 if(number % y == 0){
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print("$number is a Composite");
}
else{
   print("$number is a Prime");
}
}
```

<u>Output</u>

Coordinate Point of X and Y is -4 and -5 lies in Third Quadrant

15 is the Maximum Number

```
13 x 1 = 13

13 x 2 = 26

13 x 3 = 39

13 x 4 = 52

13 x 5 = 65

13 x 6 = 78

13 x 7 = 91

13 x 8 = 104

13 x 9 = 117

13 x 10 = 130
```

The Sum of first 20 Odd numbers is 100

The Factorial of a Number 8 is 40

7 is a Prime