

DAY-18

05 July 2023

- *****WRITE A PROGRAM TO PRINT NUMBERS BETWEEN 1-20

PRIME

1. Iteration num1 ---> 1 -20
2. Iteration n1 <= num1/2

NUM = 4

1. $4/1 = 4$
2. $4/2 = 2$
3. $4/3 = 1.3333$
4. $4/4 = 1$

NUM = 5

1. $5/1 = 5$
2. $5/2 = 2.5$
3. $5/3 = 1.6667$
4. $5/4 = 1.25$
5. $5/5 = 1$

NUM = 13

1. $13/1 = 13$
2. $13/2 = 6.5$
3. $13/3 = 4.3333$
4. $13/4 = 3.25$
5. $13/5 = 2.6$
6. $13/6 = 2.1667$
7. $13/7 = 1.8571$
8. $13/8 = 1.625$
9. $13/9 = 1.4444$
10. $13/10 = 1.3$
11. $13/11 = 1.1818$
12. $13/12 = 1.0833$
13. $13/13 = 1$

NUM = 18

1. $18/1 = 18$
2. $18/2 = 9$
3. $18/3 = 6$
4. $18/4 = 4.5$

NUM/17

1. $17/1 = 17$
2. $17/2 = 8.5$
3. $17/3 = 5.6667$
4. $17/4 = 4.25$
5. $17/5 = 3.4$
6. $17/6 = 2.8333$
7. $17/7 = 2.4286$
8. $17/8 = 2.125$
9. $17/9 = 1.8889$
10. $17/10 = 1.7$
11. $17/11 = 1.5455$
12. $17/12 = 1.4167$
13. $17/13 = 1.3077$
14. $17/14 = 1.2143$
15. $17/15 = 1.1333$
16. $17/16 = 1.0625$
17. $17/17 = 1$

class Test1

```
{
    public static void main(String[] args)
    {
        int num1 = 1; //num1 = 4
        int num2 = 20;

        while (num1<=num2) //num1 <= num2 ---> 4 <=20
        {
            //natural number more than 1
            int i = 2, count = 0;
```

```

        while (i<=num1/2)          //2<=2
        {
            if (num1%i == 0)      // 4%2 == 0
            {
                count++;
                break;
            }
            i++;
        }

        if (count == 0)
        {
            System.out.println(num1 + " is prime number");
        }
        num1++;
    }
}

```

- *****WRITE A PROGRAM TO FIND THE GIVEN NUMBER IS PRIME OR COMPOSITE NUMBER

Num = 11

1. Iteration

```

class Test1
{
    public static void main(String[] args)
    {
        int i = 2;
        int givenNum = 10;
        int divisibleCount = 0;

        while (i<=givenNum/2)
        {
            if (givenNum%i == 0)
            {
                divisibleCount++;
                break;
            }
            i++;
        }

        if (divisibleCount == 0)
        {
            System.out.println("The given number is a prime number");
        }
    }
}

```

```
        else
        {
            System.out.println("The given number is a composite number");
        }
    }
}
```