int num=5;

while(num<10)

{

System.out.println(num);

num+=2;

}

**num=5:**

num<10 i.e. 5<10 True

System.out.println(num); Print 5

num+=2 i.e. num = 7

**num=7:**

num<10 i.e. 7<10 True

System.out.println(num); Print 7

num+=2 i.e. num = 9

**num=9:**

num<10 i.e. 9<10 True

System.out.println(num); Print 9

num+=2 i.e. num = 11

**num=11:**

num<10 i.e. 11<10 False

stop the while loop.

**Output:**

5

7

9

int num=5,dum=5;

while(num>-5 && dum<10)

{

System.out.println(num);

num--;

dum++;

}

**For num=5,dum=5:**

num>-5 && dum<10 i.e. 5>-5 && 5<10 True

System.out.println(num); print 5

num-- i.e. num=4

dum++ i.e dum=6

**For num=4,dum=6:**

num>-5 && dum<10 i.e. 4>-5 && 6<10 True

System.out.println(num); print 4

num-- i.e. num=3

dum++ i.e dum=7

**For num=3,dum=7:**

num>-5 && dum<10 i.e. 3>-5 && 7<10 True

System.out.println(num); print 3

num-- i.e. num=2

dum++ i.e dum=8

**For num=2,dum=8:**

num>-5 && dum<10 i.e. 2>-5 && 8<10 True

System.out.println(num); print 2

num-- i.e. num= 1

dum++ i.e dum= 9

**For num=1,dum=9:**

num>-5 && dum<10 i.e. 1>-5 && 9<10 True

System.out.println(num); print 1

num-- i.e. num=0

dum++ i.e dum=10

**For num=0,dum=10:**

num>-5 && dum<10 i.e. 0>-5 && 10<10 False

stop the while loop.

**Output:**

5

4

3

2

1

int num=1;

while(num<=1)

System.out.println(num);

Above code results in infinite loop by printing 1 infinite time. This is happened becasue we are not changing num inside the while loop. For every iteration num is unchanged i.e. num=1. num<=1 is always true.

int num=1;

int sum=10;

while(num<10)

{

sum+=num;

num++;

}

System.out.println(sum);

Above code runs for num=1,2,3,4,6,7,8,9

Each run it adds num to sum.

Sum = 10+1+2+3+4+5+6+7+8+9 = 55

int num=0;

while(num<30)

{

for(int i=0;i<10;i++)

{

num+=3;

if(num>19)

break;

}

num++;

}

System.out.println(num);

**num=0:**

num<30 i.e. 0<30 True

i=0:

num+=3 i.e. num=3

num>19 False

i=1:

num+=3 i.e. num=6

num>19 False

i=2:

num+=3 i.e. num=9

num>19 False

i=3:

num+=3 i.e. num=12

num>19 False

i=4:

num+=3 i.e. num=15

num>19 False

i=5:

num+=3 i.e. num=18

num>19 False

i=6:

num+=3 i.e. num=21

num>19 i.e. 21>19 True so break the for loop

num++ i.e. num=22

**num=22:**

num<30 i.e. 22<30 True

i=0:

num>19 i.e. 22>19 True so break the for loop

num++ i.e. num=23

it is repeated until num=29

**num=29:**

num<30 i.e. 29<30 True

i=0:

num>19 i.e. 29>19 True so break the for loop

num++ i.e. num=30

**num=30:**

num<30 i.e. 30<30 False So stop while loop

System.out.println(num) print 30

Output = 30