Print final z (do what it says)

Take input three numbers **x**, **y**, **z** as an integer input

Then if the value of **x is greater than or equal to 20**,

a. If the value of **y is greater than or equal to 100** then **add 100 to the value of z.**

b. If the value of **y is less than 100 and greater than or equal to 50**, then **add 50 to the value of z.**

c. Else **add 10 to the value of z.**

Else if the value of **x is less than 20**,

a. If the value of **y is greater than or equal to 100** then **add 3 to the value of z.**

b. If the value of **y is less than 100 and greater than or equal to 50**, then **add 2 to the value of z.**

c. Else **add 1 to the value of z.**

Print the **final value of z** as an integer output in the end.

$x = 30$ $(x >= 20)$

$y = 120$ $(y >= 100)$

$z = 30$ $z = z + 100;$


```
if (x>=20) {
} else {
}
```

$x = 20, 21, 22, 23, \ldots, \infty$

$x = 19, 18, 17, 16, \ldots, -\infty$

Code

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt();
    int y = scn.nextInt();
    int z = scn.nextInt();

    if ( x >= 20 ) {
        if ( y >= 100 ) {
            z += 100;
        } else if ( y < 100 && y >= 50 ) {
            z += 50;
        } else {
            z += 10;
        }
    } else if ( x < 20 ) {
        if ( y >= 100 ) {
            z += 3;
        } else if ( y < 100 && y >= 50 ) {
            z += 2;
        } else {
            z += 1;
        }
    }

    System.out.println(z);
}
```

Indentation

runner up 3

a = 120

b = 11

c = 400

a is 2nd largest

$(b < a < c)$ OR $(b > a > c)$

then a will be 2nd largest

$(a < b < c)$ OR $(a > b > c)$

then b will be 2nd largest

$(a < c < b)$ OR $(a > c > b)$

then C will be 2nd largest

a = 120 ✓
b = 11 ✓
c = 400 ✓

dry run

a = 7
b = 6
c = 5

a > b && b > c

7 > 6 && 6 > 5

true

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int a = scn.nextInt();
    int b = scn.nextInt();
    int c = scn.nextInt();

    if ( ( b < a && a < c ) || ( b > a && a > c ) ) {
        System.out.println(a);
    } else if ( (a < b && b < c) || (a > b && b > c) ) {
        System.out.println(b);
    } else if ( (a < c && c < b) || (a > c && c > b) ) {
        System.out.println(c);
    }
}
```

Tell about x y

Take in two inputs **x** and **y** from the user, and then

a. If the value of **x is greater than or equal to 59** and **y is greater than or equal to 10**, then print

X is greater than or equal to 59 and y is greater than or equal to 10

b. If the value of **x is greater than or equal to 50, and y is less than 10**, then print

X is greater than or equal to 50 and y is less than 10

c. Else print **None of the condition matches**

```
if ( x >= 59 && y >= 10 ) {
        print statment 1
} else if ( x >= 50 && y < 10 ) {
        print S2
} else {
        p  S3
}
```


```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt();
    int y = scn.nextInt();

    if (x >= 59 && y >= 10) {
        System.out.println("X is greater than or equal to 59 and y is greater than or equal to 10");
    } else if ( x >= 50 && y < 10 ) {
        System.out.println("X is greater than or equal to 50 and y is less than 10");
    } else {
        System.out.println("None of the condition matches");
    }
}
```

Print the final incremented salary

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int age = scn.nextInt();
    int salary = scn.nextInt();
    int exp = scn.nextInt();

    if ( age > 60 && salary > 20000 && exp > 20) {
        salary += 5000;
    } else if ( age > 40 && salary > 15000 && exp > 10 ) {
        salary += 2000;
    } else if (age > 30 && salary > 10000 && exp > 5) {
        salary += 1000;
    } else {
        salary += 500;
    }

    System.out.println(salary);
}
```

⇒ Switch Statement

Syntax

```
switch ( condition ) {
    case  val1 :
          // statement 1
          break;
    case  val2 :
          // statement 2
          break;
    case  val3 :
          // statement 3
          break;
    default :
          // statement 4
          break;
}
```

Note :-

always checks from top to bottom.

Ex:-

```java
public class Main {
    public static void main(String[] args) {
        int x = 30;
        switch(x) {
            case 10 :
                System.out.println("A");
                break;
            case 20 :
                System.out.println("B");
                break;
            case 30 :
                System.out.println("C");
                break;
            case 40 :
                System.out.println("D");
                break;
            case 50 :
                System.out.println("E");
                break;
            default :
                System.out.println("F");
                break;
        }
    }
}
```

disadvantage

↳ only 1 variable can be checked at a time