Print final z given xyz

```
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 && z < 100 ) {
        z += 200;
    } else if ( x >= 10 || y < 50 ) {
        z += 100;
    }
    System.out.println(z);
}
```

Print if divisible by both 3 and 4

i/p :- int n = 34;

n % 4 == 0

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

    if ( n % 3 == 0 && n % 4 == 0 ) {
        System.out.println("Divisible by 3 and 4");
    } else {
        System.out.println("Not Divisible");
    }
}
```

Print z and x divisible by 3

```
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 % 3 == 0) {
        if ( y >= 200 ) {
            z += 10;
        } else if ( y >= 100 && y < 200 ) {
            z += 5;
        } else if ( y >= 50 && y < 100 ) {
            z += 4;
        } else if ( y < 50 ) {
            z += 1;
        }
    } else {
        if ( y >= 200 ) {
            z += 3;
        } else if ( y >= 100 && y < 200 ) {
            z += 2;
        } else if ( y < 100 ) {
            z += 1;
        }
    }
    z += 10;
    System.out.println(z);
}
```

⇒ Characters , (char)

↳ 'a', 'b', 'C', 'Z', '+', '%', ' '

↳ all characters are surrounded by single quotes

⇒ String , (String)

↳ collection of characters

↳ always surrounded by double quotes

String str = "Abhik Patra";

→ Inbuilt functions

String str = "aAbB+-* 123";

0 1 2 3 4 5 6 7 8 9 10

Indexing :- imaginary no. always start from zero

1) int len = str.length(); → 11

(return int)

2) char ch = str.charAt(index);

(return char)

Ex:-

str = "Aditee Lanjewar";

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

1) str.length() ⟶ 15

2) str.charAt(7) ⟶ 'L'

str.charAt(5) ⟶ 'e'

str.charAt(6) ⟶ ' '

str.charAt(15) ⟶ error

(String Index Out of Bound)

Input :- String str = "Amit Tanwar ABC"

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

String :- 1) scn.nextLine(); //"Amit Tanwar ABC"

2) scn.next(); //"Amit"

Character :-

↳ scn.next().charAt(0);

Grade the student-2

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    char ch = scn.next().charAt(0);

    switch(ch) {
        case 'A':
            System.out.println("Excellent!");
            break;
        case 'B':
            System.out.println("Well done!");
            break;
        case 'C':
            System.out.println("You passed!");
            break;
        case 'F':
            System.out.println("Better luck next time!");
            break;
        default:
            System.out.println("Invalid grade");
    }
}
```

Code (using ladder)

```
if ( ch == 'A' ) {
    System.out.println("Excellent!");
} else if ( ch == 'B' ) {
    System.out.println("Well done!");
} else if ( ch == 'C' ) {
    System.out.println("You passed!");
} else if ( ch == 'F' ) {
    System.out.println("Better luck next time!");
} else {
    System.out.println("Invalid grade");
}
```

Switch Calculator 1

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

    switch(n) {
        case 10:
            System.out.println(a + b);
            break;
        case 20:
            System.out.println(a - b);
            break;
        case 30:
            System.out.println(a * b);
            break;
        case 40:
            System.out.println(a % b);
            break;
        case 50:
            System.out.println(a / b);
            break;
        default:
            System.out.println("Enter a valid number");
            break;
    }
}
```