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

int n = 12 ;

(n % 3 == 0 && 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

If **x** was divisible by **3**, the program checked the value of **y**.

- If **y** was greater than or equal to **200**, the program added **10** to the value of **z**.
- If **y** was greater than or equal to **100** but less than **200**, the program added **5** to the value of **z**.
- If **y** was greater than or equal to **50** but less than **100**, the program added **4** to the value of **z**.
- If **y** was less than **50**, the program added **1** to the value of **z**.

On the other hand, if **x** was not divisible by **3**, the program also checked the value of **y**.

- If **y** was greater than or equal to **200**, the program added **3** to the value of **z**.
- If **y** was greater than or equal to **100** but less than **200**, the program added **2** to the value of **z**.
- If **y** was less than **100**, the program added **1** to the value of **z**.

Finally, the program added **10** to the value of **z** and printed the final value of **z**.

code

```
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;
    }
}
print(z + 10);
```

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 % 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;
        }
    }
    System.out.println(z + 10);
}
```

⇒ Character , (char)

- 'a', 'b', 'A', '3', '+', '-', ' '
- any single length character with single quotes

⇒ String

- "abc", "123", "Aa1+-% Zz", "a"
- Collection of char

Ex:-) str = "Ankit Kinha"
0 1 2 3 4 5 6 7 8 9 10

, 11 char in the string

(Indexing :- imaginary no. always starts from zero)

Inbuilt functions

1) str.length(); // 11

2) str.charAt(4); // 't'

str.charAt(0); // 'A'

str.charAt(11); // String Index Out of Bound

Note:-

str = "Ankit Kinha"

"Ankit"

1) String str1 = scn.next(); // input until first space

2) String str2 = scn.nextLine(); // input entire line

"Ankit Kinha"

Note:- char ch = 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");
            break;
    }
}
```

Switch Calculator 1

```
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 :
            if (b == 0) {
                System.out.println("Error: Integer modulo by zero");
            } else {
                System.out.println(a % b);
            }
            break;
        case 50 :
            if (b == 0) {
                System.out.println("Error: Division by zero");
            } else {
                System.out.println(a / b);
            }
            break;
        default :
            System.out.println("Enter a valid number");
            break;
    }
}
```