

\*\*\*\*\* OUTPUT \*\*\*\*\*

```
16
16 can be broken down into following coin: 10
This is the remainder: 6
6 can be broken down into following coin: 5
This is the remainder: 1
1 can be broken down into following coin: 1
This is the remainder: 0

This is the number of coins: 3
```

Welcome to Online IDE!! Happy Coding :)  
Enter requested amount to be converted to coins:

-----

```
37
37 can be broken down into following coin: 25
This is the remainder: 12
12 can be broken down into following coin: 10
This is the remainder: 2
2 can be broken down into following coin: 1
This is the remainder: 1
1 can be broken down into following coin: 1
This is the remainder: 0
```

This is the number of coins: 4

\*\* Process exited - Return Code: 0 \*\*

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```
50
50 can be broken down into following coin: 25
This is the remainder: 25
25 can be broken down into following coin: 25
This is the remainder: 0

This is the number of coins: 2
```

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\*\*\*\*\* CODE \*\*\*\*\*

```
/*
Online Java - IDE, Code Editor, Compiler

Online Java is a quick and easy tool that helps you to build, compile, test your programs online.
*/
import java.util.Scanner;
import java.util.Arrays;

public class Main
{
    public static void main(String[] args) {
        System.out.println("Welcome to Online IDE!! Happy Coding :)");

        int [] coins = new int[]{1,5,10,25};
        int number;
        Scanner reader=null;
        int coinCount=0;

        // This is used to ascertain how many digits end user wants
        reader = new Scanner(System.in); // Reading from System.in
        System.out.println("Enter requested amount to be converted to coins:");
        number=reader.nextInt();

        coinChange cc = new coinChange(coins, number);
        System.out.println("\nThis is the number of coins: " + cc.getNumberCoins());

    }
}

class coinChange
{
    int[] coins;
    int number;
    //int numberCoins;
    int coinCount=0;

    public coinChange(int coins[], int number)
    {
        this.coins=coins;
        this.number=number;

        convertCoins(number);
    }

    //int [] coins = new int[]{1,5,10,25};
    public int convertCoins(int n)
    {
        if (number!=0)
        {
            for (int i=coins.length-1; i>=0; i--)
            {
                if (number==1)
                {
                    System.out.println(number + " can be broken down into following coin: " + coins[0]);

                    number=0;
                    System.out.println("This is the remainder: " + number);
                    coinCount++;

                    return convertCoins(number);
                }
            }
        }
    }
}
```

```
if (number-coins[i]>=0)
{
    System.out.println(number + " can be broken down into following coin: " + coins[i]);

    number=number-coins[i];
    System.out.println("This is the remainder: " + number);
    coinCount++;
    return convertCoins(number);
}

}
}
return 0;
}

public int getNumberCoins()
{
    return coinCount;
}
}
```