**package** AlgorithmDpPractise;

**class** CoinChangeDPRecursive

{

**public int**[] **coins**;

**public int sum**;

**public int check**;

**public int check1**;

**public int add**;

**public** CoinChangeDPRecursive(**int**[] coins, **int** sum) {

**this**.**coins** = coins;

**this**.**sum** = sum;

}

**public int** numberOfWays(**int** sum)

{

**if** (sum == 0)

{

**return** 1;

}

**if** (sum<0)

{

**return** 0;

}

**add** = 0;

**for** (**int** i=0;i<**coins**.**length**;i++)

{

**add** = **add** + numberOfWays(sum-**coins**[i]);

}

**return add**;

}

}

**public class** NumberOfWaysRecursive {

**public static void** main(String[] args) {

**int**[] coins = {1,2,3};

**int** sum = 4;

CoinChangeDPRecursive object = **new** CoinChangeDPRecursive(coins,sum);

object.numberOfWays(sum);

System.***out***.println(**"Total number of ways = "**+object.numberOfWays(sum));

}

}