```java
/*CPSC assignment 1
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*/

package cpsc331.A1;

public class SHufflepuff {
// Precondition: A non-negative integer n is given as input.
// Postcondition: The nth Hufflepuff number, Hn, is returned as output.
protected static int sHuffle(int n){
        // Assertion: A non-negative integer n has been given as input.
        if(n>= 0) {
                if (n == 0) {
                        return 10;
                } else if (n == 1) {
                        return 9;
                } else if (n == 2) {
                        return 8;
                } else if (n == 3) {
                        return 7;
                } else {
                        //Bound Function: n-i
                        return 4*sHuffle(n - 1) - 6*sHuffle(n - 2) + 4*sHuffle(n - 3)
- sHuffle(n - 4);
                }
                // Assertion:
                // 1. A non-negative integer n has been given as input.
                // 2. The nth Hufflepuff number, Hn, has been returned as output.
        }
        else {
                throw new IllegalArgumentException("Silly muggle! The input integer
cannot be negative.");
        }
        // Assertion:
        // 1. A non-negative integer n has been given as input.
        // 2. The nth Hufflepuff number, Hn, has been returned as output.
}
// The main method takes an integer input n as an argument in the command line.
// The method checks if a valid argument is present in the command line, it will throw
// an IllegalArgumentException if not. If a valid argument was given, proceed to call
// sHuffle function and return the corresponding Hufflepuff number to user.
public static void main(String[] args) {
        Boolean IllegalArgument=false;    //Initiate a boolean to check for illegal
argument
        if(args.length != 0) {  //If the argument length is not 0
                if (!args[0].matches("-?\\d+(\\.\\d+)?")) //If the first argument are
numbers
                {       //Set boolean to true and throw exception
                        IllegalArgument=true;
                        throw new IllegalArgumentException("Silly muggle! One integer
input is required.");
                }
        }else{  //If the number of arguments was 0, set boolean to true and throw
exception
                IllegalArgument=true;
                throw new IllegalArgumentException("Silly muggle! One integer input
is required.");
        }
        if(!IllegalArgument) {  //Check the boolean and if the boolean was false then
proceed
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                if (args.length == 1 && args[0].matches("\\d+")) { //If the number of
arguments is 1 and the first argument are digits
                        System.out.println(sHuffle(Integer.parseInt(args[0]))); //
Print the integer returned from calling sHuffle method with first argument
                } else if (Integer.parseInt(args[0]) < 0) { //If the first argument
is a negative integer, print error
                        throw new IllegalArgumentException("Silly muggle! The input
integer cannot be negative.");
                } else { //Else throw an illegal argument exception
                        throw new IllegalArgumentException("Silly muggle! One integer
input is required.");
                }
        }
}
}
// References:
// sHuffle function: CPSC 331 - Assignment #1 Proving the Correctness of Simple
Algorithms - and Implementing Them as Java Programs
```