**RecursiveAddition.java**

package spring\_2020;

import java.util.Scanner;

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public class RecursiveAddition {

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\* **@param** args

\*/

public static void main(String[] args) {

int num1;

int num2;

Scanner keyboard = new Scanner(System.***in***);

System.***out***.println(

"First enter a value to be multiplied, then enter a value for how many times to multiply the previous value");

num1 = keyboard.nextInt();

num2 = keyboard.nextInt();

int product = *multiplication*(num1, num2);

System.***out***.println("Product = " + product);

keyboard.close();

}

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\* **@param** num1 value to be multiplied

\* **@param** num2 number of multiplications

\* **@return** product

\*/

public static int multiplication(int num1, int num2) {

// handles multiplcation of 0

if (num2 == 0 || num1 == 0)

return 0;

// swaps parameters for next if statements

else if (num1 < num2)

return *multiplication*(num2, num1);

// handles positive multiplication

else if (num2 > 0)

return num1 + *multiplication*(num1, num2 - 1);

// handles negative multiplication

else if (num2 < 0)

return -num1 + *multiplication*(num1, num2 + 1);

else

return num1;

}

}

**Output**

First enter a value to be multiplied, then enter a value for how many times to multiply the previous value

2

2

Product = 4

First enter a value to be multiplied, then enter a value for how many times to multiply the previous value

2

0

Product = 0

First enter a value to be multiplied, then enter a value for how many times to multiply the previous value

2

-2

Product = -4

First enter a value to be multiplied, then enter a value for how many times to multiply the previous value

-2

-2

Product = 4

First enter a value to be multiplied, then enter a value for how many times to multiply the previous value

0

0

Product = 0