// JAVA program to compute factorial

// of big numbers

**class** GFG {

    // This function finds factorial of

    // large numbers and prints them

**static** **void** factorial(**int** n)

    {

**int** res[] = **new** **int**[500];

        // Initialize result

        res[0] = 1;

**int** res\_size = 1;

        // Apply simple factorial formula

        // n! = 1 \* 2 \* 3 \* 4...\*n

**for** (**int** x = 2; x <= n; x++)

            res\_size = multiply(x, res, res\_size);

        System.out.println("Factorial of given number is ");

**for** (**int** i = res\_size - 1; i >= 0; i--)

            System.out.print(res[i]);

    }

    // This function multiplies x with the number

    // represented by res[]. res\_size is size of res[] or

    // number of digits in the number represented by res[].

    // This function uses simple school mathematics for

    // multiplication. This function may value of res\_size

    // and returns the new value of res\_size

**static** **int** multiply(**int** x, **int** res[], **int** res\_size)

    {

**int** carry = 0; // Initialize carry

        // One by one multiply n with individual

        // digits of res[]

**for** (**int** i = 0; i < res\_size; i++) {

**int** prod = res[i] \* x + carry;

            res[i] = prod % 10; // Store last digit of

                                // 'prod' in res[]

            carry = prod / 10; // Put rest in carry

        }

        // Put carry in res and increase result size

**while** (carry != 0) {

            res[res\_size] = carry % 10;

            carry = carry / 10;

            res\_size++;

        }

**return** res\_size;

    }

    // Driver program

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

    {

        factorial(100);

    }

}

// This code is contributed by Nikita Tiwari