

# Day 4: Binomial Distribution II

## Objective

In this challenge, we go further with binomial distributions. We recommend reviewing the previous challenge's [Tutorial](#) before attempting this problem.

## Task

A manufacturer of metal pistons finds that, on average, **12%** of the pistons they manufacture are rejected because they are incorrectly sized. What is the probability that a batch of **10** pistons will contain:

1. No more than **2** rejects?
2. At least **2** rejects?

## Input Format

A single line containing the following values (denoting the respective percentage of defective pistons and the size of the current batch of pistons):

```
12 10
```

If you do not wish to read this information from stdin, you can hard-code it into your program.

## Output Format

Print the answer to each question on its own line:

1. The first line should contain the probability that a batch of **10** pistons will contain no more than **2** rejects.
2. The second line should contain the probability that a batch of **10** pistons will contain at least **2** rejects.

Round both of your answers to a scale of **3** decimal places (i.e., **1.234** format).