Day 4: Normal Distribution #2

Objective

In this challenge, we practice solving problems with normally distributed variables.

Task

In a certain plant, the time taken to assemble a car is a random variable having a normal distribution with a mean of 20 hours and a standard deviation of 2 hours. What is the probability that a car can be assembled at this plant in:

1. Less than 19.5 hours?

2. Between 20 and 22 hours?

Output Format

Your output must be a floating point/decimal number, correct to a scale of 3 decimal places. You can submit solutions in either of the 2 following ways:

1. Solve the problem manually and submit your result as *Plain Text*. In the text box below, enter 2 lines of floating point/decimal numbers.

2. Submit an *R* or *Python* program, which uses the above parameters (hard-coded), and computes the answer.

Your answer should resemble something like:

```
0.123
0.456
```

(This is **NOT** the answer, just a demonstration of the answering format.)