The Central Limit Theorem #6

The amount of regular unleaded gas purchased every week at a particular gas station follows the normal distribution with a mean of 50000 gallons and a standard deviation of 10000 gallons. The starting supply of gasoline is 74000 gallons, and there is a scheduled weekly delivery of 47000 gallons. How many gallons should the weekly delivery be so that after 11 weeks the probability that the supply is below 20000 gallons is only 0.5%?

Submission Modes and Output Format
You may either solve the problem on pen-and-paper and submit the final answer in the text box, or you may submit an R or Python program to accomplish the above task. Your output should be a floating point/decimal number, correct to 1 place of decimal.

1. In the text box below, enter a floating point/decimal number, correct to 4 places of decimal.
2. Alternatively, you may submit an **R** program, which uses the above parameters (hard-coded) and computes the answer.

Your answer should resemble something like:

```
1234.2
```

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