

## Section 7.2 — Central Limit Theorem with Means

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Examples

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2. Find the probability that the mean of the sample is less than 2.1 feet.
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4. Find the probability that the sample mean differs from the population mean by more than 0.06 feet.



## Drive-through wait times

The mean wait time for a drive-through chain is 193.2 seconds with a standard deviation of 29.5 seconds. What is the probability that for a random sample of 45 wait times, the mean is between 185.7 and 206.5 seconds?

# Elevator Safety

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1. What's the highest mean weight for the passengers so that they do not exceed the weight limit?
2. What's the probability that the 16 male passengers exceed the weight limit?

# Hats

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1. What percentage of women can fit into the hats?
2. If 64 women are selected at random, what is the probability that their mean head circumference is between 21.00in and 25.00in?
3. I want to know if an order of 64 hats will likely fit each of the women. Which of the previous numbers do I want?