

## Week 1 Lab

Quiz, 6 questions

✓ **Congratulations! You passed!**

Next Item



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points

1.

Which of the following is *false*?



The distribution of areas of houses in Ames is unimodal and right-skewed.



50% of houses in Ames are smaller than 1,499.69 square feet.



**Correct**



The middle 50% of the houses range between approximately 1,126 square feet and 1,742.7 square feet.



The IQR is approximately 616.7 square feet.



The smallest house is 334 square feet and the largest is 5,642 square feet.

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Quiz, 6 questions 2.

Suppose we took two more samples, one of size 100 and one of size 1000. Which would you think would provide a more accurate estimate of the population mean?

- ☐ Sample size of 50
- ☐ Sample size of 100
- ☒ Sample size of 1000

**Correct**

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points

3.

How many elements are there in this object called `sample_means_small`?

- ☐ 0
- ☐ 3
- ☒ 25

**Correct**

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- ☐ 100
  - ☐ 5,000
-

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Quiz, 6 questions 4.

Which of the following is *true* about the elements in the sampling distributions you created?

- ☒ Each element represents a mean square footage from a simple random sample of 10 houses.



**Correct**

- ☐ Each element represents the square footage of a house.
- ☐ Each element represents the true population mean of square footage of houses.



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points

5.

It makes intuitive sense that as the sample size increases, the center of the sampling distribution becomes a more reliable estimate for the true population mean. Also as the sample size increases, the variability of the sampling distribution \_\_\_\_\_.

- ☒ decreases



**Correct**

- ☐ increases
- ☐ stays the same

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Quiz, 6 questions 6.

Which of the following is false?

- ☒ The variability of the sampling distribution with the smaller sample size (sample\_means50) is smaller than the variability of the sampling distribution with the larger sample size (sample\_means150).



**Correct**

- ☐ The means for the two sampling distributions are roughly similar.
- ☐ Both sampling distributions are symmetric.

