

2.4: Confidence Interval of the Mean Response

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Topic 2.4: Confidence Interval of the Mean Response

Read Section 2.4.2 of your textbook. As you read, take notes on the following.

1. Write down the formula for the confidence interval of the mean response. For this confidence interval:
 - How does increasing the level of confidence affect the width of this confidence interval?
 - How does model fit affect the width of this confidence interval?
 - How does the width of this confidence interval change as the value of the predictor variable moves farther away from the sample mean of the predictor?
2. Describe, in your own words, what a confidence interval of the mean response tells us.

Refer to this file for a more in-depth explanation of how the standard error for the mean response is derived.

 [mod2_standarderror_mean.pdf](#)

In-Depth Explanation for Properties of Least-Squares Estimators