

## STAT 110: Practice Problem 13

Fall 2017

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1. A study was conducted to investigate the relationship between the smoking habits and divorce history of 1,669 people (all subjects had been married at some point). The results are shown in the following table.

	Ever Divorced?		
Smoking Status	No	Yes	Total
Nonsmoker	810	374	1184
Smoker	247	238	485
<b>Total</b>	<b>1057</b>	<b>612</b>	<b>1669</b>

- Find the risk of divorce for smokers.
- Find the risk of divorce for nonsmokers.
- Find and interpret the relative risk ratio.
- Find the odds of divorce for smokers.
- Find the odds of divorce for nonsmokers.

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- f. Find and interpret the odds ratio.
- g. Suppose a journalist writes a story summarizing the results of this study and uses the following headline: "Study Shows that Smoking More than Doubles the Risk of Divorce." This headline is inappropriate for two (statistical) reasons. Identify both of these reasons.