

## Chapter 1 FRAPPY!

*Directions: Show all your work. Indicate clearly the methods you use, because you will be scored on the correctness of your methods as well as on the accuracy and completeness of your results and explanations.*

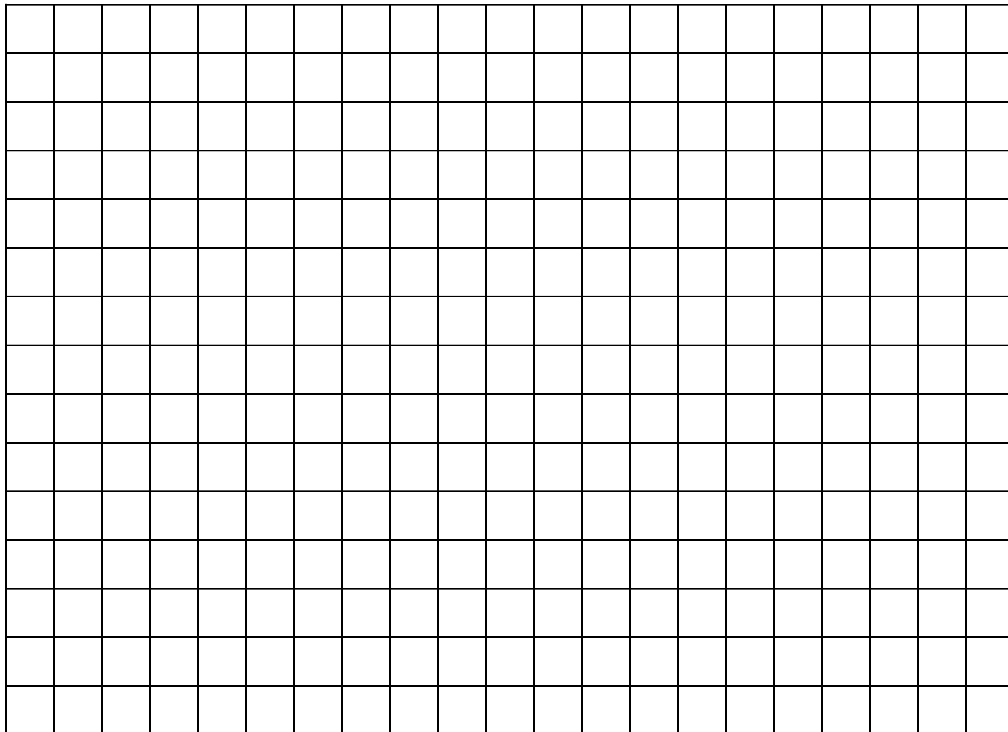
Using data from the 2000 census, a random sample of 348 U.S. residents aged 18 and older was selected. Among the variables recorded were gender (male or female), housing status (rent or own), and marital status (married or not married).

The two-way table below summarizes the relationship between gender and housing status.

	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Own</b>	132	122	<b>254</b>
<b>Rent</b>	50	44	<b>94</b>
<b>Total</b>	<b>182</b>	<b>166</b>	<b>348</b>

(a) What percentage of the males in the sample own their home?

(b) Make a graph to compare the distribution of housing status for males and females.



(c) Using your graph from part (b), describe the relationship between gender and housing status.

(d) The two-way table below summarizes the relationship between marital status and housing status.

	<b>Married</b>	<b>Not Married</b>	<b>Total</b>
Own	172	82	<b>254</b>
Rent	40	54	<b>94</b>
<b>Total</b>	<b>212</b>	<b>136</b>	<b>348</b>

For the members of the sample, is the relationship between marital status and housing status stronger or weaker than the relationship between gender and housing status that you described in part (c)? Justify your choice using the data provided in the two-way tables.