1. Define variables and write two equations that relate rental price to length of rental for the two car rental companies.

2. Graph both equations on the same set of axes and find the coordinates of the intersection point.

3. Substitute the coordinates of the intersection point into both equations. Is neither equation true, is one equation true, or are both equations true?

4. For what number of rental days do both Ritz and Smits charge the same price? What is that price? How can you tell the number of days and price from the graph?

5. Cars are rented for business use for two days on average and for recreational use for five days on average. If Ritz wants to be more competitive in the recreational market and Smits wants to be more competitive in the business market, how would you advise each of their managers? Explain using the graphs.

**MATERIALS**

Graphing utility or Graph paper and Straightedge

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