Name: _____ Date: _____

Chapter 4 Project
Solving Algebraic Inequalities

There are 25 students in a class. Nicole, the school administrator, has a budget of $400 to pay for a field trip for the class. The table below shows cost information for transportation and food from some companies that Nicole can use for the field trip. Each company also charges a service fee of $50.

	Cost of transportation (x dollars)	Cost of food (y dollars)
Company A	$7 per passenger	$10 per passenger (includes food and drink)
Company B	$10 for the first 20 passengers and $5 for subsequent passenger	$5 per passenger (additional $2 for each drink)
Company C	$15 per passenger	$8 per passenger (no drinks included)
Company D	$12 for the first 10 passengers and $8 for subsequent passenger	$5 per passenger (no drinks included)
Company E	$10 per passenger	$8 per passenger (includes food and drink)

For this project, you will use inequalities to help Nicole choose the most cost-effective company or companies to use for the field trip.

Name: _____ Date: _____

Chapter 4 Project
Student Recording Sheet

1. Write an expression in terms of x and y to express the total amount of money to be spent on the class field trip. Then write an inequality using your expression.

2. Which company do you think Nicole should choose for the class field trip so that it's within the budget? Explain your choice.