

Chapter 9 Wrap It Up!

This worksheet will help you with the Math Link: Wrap It Up! on page 371.

You are a successful amusement park manager who has been offered the opportunity to plan a new park in a different location.

1. a) Give your park a name and choose a location.

b) Explain how you made your choice.

c) State the population of the area surrounding the park that you chose.

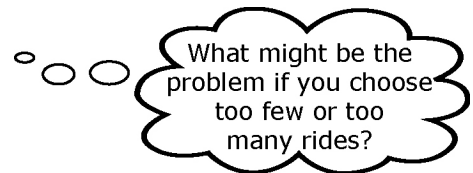
2. Make the following assumptions about your park:

- The fixed costs include \$5000 in addition to maintenance and wage expenses.
- The maintenance and repairs cost \$400 per ride.
- Eight employees are needed to operate and supervise each ride.

a) Choose a reasonable number of rides for your park. _____

b) Conduct research and then decide

- the number of hours that rides will be open _____
- the average hourly wage for employees _____



3. Use the following table to organize your information about estimated operating expenses and revenues for the park. You may not need to use all of the rows.

For expenses,

- find the total variable operating expenses per visitor
- find the total fixed expenses

For revenues,

- find the total variable revenues per visitor
- find the total fixed revenues

Hint: Refer to the Math Link on page 367 for examples of variable expenses and revenues and fixed expenses and revenues.

Name: _____

Date: _____

Daily Expenses	
Daily Revenues	

4. Write an algebraic expression to represent each of the following for the number of rides you chose:
- a) expenses per visitor _____
 - b) revenue per visitor _____
5. For each of the following questions, show all your work.
- a) What is the revenue minus the expenses for each visitor?
 - b) What is the total number of visitors needed to cover all of the expenses?
 - c) What is the total number of visitors needed for the park to make a profit?
6. Assume that you have now officially opened your park. You find that 0.1% of the population in the area comes to the park per day on average.
- a) Using this information, follow the steps below to determine if your park will earn a profit. Show all your work.
Population of the area $\times 0.001 =$ _____ visitors per day
Total number of visitors needed to cover expenses _____ **Hint:** Use your answer for #5b).
Will your park earn a profit? YES NO
 - b) If you answered NO to #6a), explain what changes you could make.