

Section 9.3 Math Link

This worksheet will help you with the Math Link on page 367.

1. Copy the table and fill in the missing information.

| Daily Expenses | |
|--|--------|
| Total variable operating costs per visitor | \$15 |
| Total fixed costs (\$5000 + \$1200 per ride) | |
| Daily Revenues | |
| Admission (includes ride pass) per visitor | \$38 |
| Food per visitor | \$25 |
| Souvenirs per visitor | \$10 |
| Parking per visitor | \$10 |
| Total variable revenues per visitor | |
| Fixed revenue from sponsorship | \$2500 |

2. a) What are the total variable operating expenses per visitor?
b) What are the total fixed costs?
c) Write an expression to represent the total expenses.
3. a) What are the total variable revenues per visitor?
b) What is the total fixed revenue?
c) Write an expression to represent the total revenues.
4. a) Develop an inequality to determine the number of visitors needed per day to make a profit. **Hint:** To make a profit, the total revenues must be greater than the total expenses.
b) Solve the inequality. Justify your solution mathematically.