

PROJECT

Applying Chapters 1–3

Running a Business

OBJECTIVE Comparing the expenses and income of a business to determine profitability.

Materials: paper, pencil, graphing calculator or computer (optional)

INVESTIGATION

In Exercises 1–8, use the financial plan below.

My summer window-cleaning business: Financial Plans

1. Expenses:

- Paper towels cost \$.90 for a 60-sheet roll.
- Spray window cleaner costs \$1.98 for a 33-ounce bottle.
- A step ladder costs \$25.00.

2. Income (per window):

Number of windows	1–14	15 or more
Outside only	\$.60	\$.50
Outside and inside	\$1.10	\$1.00

1. You use two paper towels and 0.5 ounce of window cleaner to clean one side of a window. What is the total cost of materials to clean one side of a window?
2. Write an equation to find the cost C of cleaning one side of x windows.
3. Copy and complete the table. You may want to use a spreadsheet.

Number of windows	5	9	15	25
Cost for one side	?	?	?	?
Cost for both sides	?	?	?	?

4. Write an equation for the income I for cleaning both sides of x windows when $x < 15$.
5. How much profit will you make for cleaning both sides of 15 windows?
6. What is your total profit for cleaning the windows of 6 houses (inside and outside) with 12, 17, 13, 9, 14, and 10 windows respectively?
7. How many windows do you have to clean to pay for your step ladder? Explain your reasoning.
8. What would it mean if you found a negative profit?

