Quiz 2 – Analyzing Municipal Budgets

Nearly all cities, towns, and villages operate with an annual budget. Budget items might include expenses for fire and police protection as well as for street maintenance and parks. No matter how big or small the budget, city officials need to know if municipal spending is over or under budget. In this project, you will have the opportunity to analyze a municipal budget and make budgetary recommendations. This project may be completed by working in groups or individually.

Suppose that each year your town creates a municipal budget. The next year's annual municipal budget is submitted for approval by the town's citizens at the annual town meeting. This year's budget was printed in the town newspaper earlier in the year. See the next page for the printed budget.

You have joined a group of citizens who are concerned about your town's budgeting and spending processes. Your group plans to analyze this year's budget along with what was actually spent by the town this year. You hope to present your findings at the annual town meeting and make some budgetary recommendations for next year's budget. The municipal budget contains many different areas of spending. To help focus your group's analysis, you have decided to research spending habits only for categories in which the actual expenses differ from the budgeted amount by more than 12% of the budgeted amount.

- 1. For each category in the budget, write a specific absolute value inequality that describes the condition that must be met before your group will research spending habits for that category. In each case, let the variable *x* represent the actual expense for a budget category.
- 2. For each category in the budget, write an equivalent compound inequality for the condition described in Question 1. Again, let the variable *x* represent the actual expense for a budget category.
- 3. On the next page is a listing of the actual expenditures made this year for each budget category. Use the inequalities from either Question 1 or Question 2 to complete the Budget Worksheet given at the end of this project. (The first category has been filled in.) From the Budget Worksheet, decide which categories must be researched.
- 4. Can you think of possible reasons why spending in the categories that must be researched were over or under budget?
- 5. Based on this year's municipal budget and actual expenses, what recommendations would you make for next year's budget? Explain your reasoning.

(cont'd)

(cont'd)

| | Department/Program | Actual Expenditure |
|------|---------------------------|--------------------|
| I. | Board of Health | |
| | Immunization Programs | \$14,800 |
| | Inspections | \$41,900 |
| II. | Fire Department | |
| | Equipment | \$375,000 |
| | Salaries | \$268,500 |
| III. | Libraries | |
| | Book/Periodical Purchases | \$107,300 |
| | Equipment | \$29,000 |
| | Salaries | \$118,400 |
| IV. | Parks and Recreation | |
| | Maintenance | \$82,500 |
| | Playground Equipment | \$45,000 |
| | Salaries | \$118,000 |
| | Summer Programs | \$96,200 |
| V. | Police Department | |
| | Equipment | \$328,000 |
| | Salaries | \$405,000 |
| VI. | Public Works | |
| VI. | Recycling | \$48,100 |
| | Sewage | \$92,500 |
| | Snow Removal & Road Salt | \$268,300 |
| | Street Maintenance | \$284,000 |
| | Water Treatment | \$94,100 |
| | TOTAL | \$2,816,600 |

THE TOWN CRIER

Annual Budget Set at Town Meeting ANYTOWN, USA (MG)—This year's annual budget is as follows:

| BOARD OF HEALTH Immunization Programs | \$15,000 | Amount Budgeted | |
|--|----------|------------------------|--|
| Inspections | \$15,000 | \$50,000 | |
| FIRE DEPARTMENT | | | |
| | | £450.000 | |
| Equipment Salaries | | \$450,000 \$275,000 | |
| Sururies | | \$275,000 | |
| LIBRARIES | | | |
| Book/Periodical Purchase | | \$90,000 | |
| Equipment | | \$30,000 | |
| Salaries | | \$120,000 | |
| PARKS AND RECREATION | | | |
| Maintenance | | \$70,000 | |
| Playground Equipment | | \$50,000 | |
| Salaries | | \$140,000 | |
| Summer Programs | | \$80,000 | |
| POLICE DEPARTMENT | | | |
| Equipment | | \$300,000 | |
| Salaries | | \$400,000 | |
| PUBLIC WORKS | | | |
| Recycling | | \$50,000 | |
| Sewage | | \$100.000 | |
| Snow Removal & Road Salt | | \$200,000 | |
| Street Maintenance | | \$250,000 | |
| Water Treatment | | \$100,000 | |
| TOTAL | | \$2,770,000 | |
| IUIAL | | \$2,770,000 | |
| | | | |

BUDGET WORKSHEET

| Budget category | Budgeted amount | Minimum allowed | Actual expense | Maximum allowed | Within budget? | Amt over/ under budget |
|--------------------------|--------------------|--------------------|-------------------|--------------------|-------------------|------------------------------|
| Immunization Programs | \$15,000 | \$13,200 | \$14,800 | \$16,800 | Yes | Under \$200 |