The government has undertaken a highway project that was originally planned to cost $1 billion and provided benefits of $1.1 billion. Unfortunately, the project cost $1.2 billion. The government has now received a larger amount than anticipated. The project was completed but the government has lost money.

### Problem Set

**Q1:** Explain how the government incurred a loss in this project. How much of the loss was due to the overrun in costs and how much was due to the increase in revenues?

**Q2:** Suppose the government had decided to build the project for $1 billion instead of $1.2 billion. How much more would the government have earned in revenues?

**Q3:** If the government had decided to build the project for $1 billion instead of $1.2 billion, how much more would the government have saved in costs?

### Numerical Exercises

- **Exercise 1:** Calculate the total cost of building the highway, including interest on borrowed funds.
- **Exercise 2:** Determine the revenue generated from the highway, including tolls and fines.
- **Exercise 3:** Compute the difference between the total cost and the total revenue to find the net profit.

### Table

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### Relevance Questions

**Q1:** What is the total cost of building the highway? How does this cost compare to the benefits generated by the highway?

**Q2:** How does the increase in revenues affect the government's financial position?

**Q3:** What are the implications of the government's decision to build the highway for future projects?