A small local village has recently changed how they calculate the cost of speeding tickets. They are asking for your help to create a program that will calculate the cost of tickets. They’ve highlighted the relevant ordinances for you.

**Driving under the posted limit:**

- The fine for driving **more than 12mph under the posted speed limit** is $150.
- Driving under—but within 12mph of—the posted speed limit is permitted.

**Driving over the posted limit:**

- Driving above the posted speed limit **at 125mph or greater** results in a $2000 ticket.
- The cost of a ticket for driving above the posted speed limit (but under 125mph) is calculated as follows:
  - Each of the first 20 mph over the limit costs $45.
  - Each additional mph over the limit costs $100.

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1. **Understanding the Problem**
2. **Designing the Program**
3. **Writing the Program**
4. **Looking Back**