Clicker Questions

- **Question 1**: What is the output of **p1.cpp** when it runs with **input-1.txt** as standard input?
- **Question 2**: What is the output of **p2.cpp** when it runs with **input-1.txt** as standard input?
- **Question 3**: What is the output of **p3.cpp** when it runs with **input-2.txt** as standard input?

(BTW, I'm omitting the "include" and "using" lines to conserve space. Just pretend that the correct ones are there.)

input-1.txt

```
Dear Earl,
Great Job!
Love Madison
```

input-2.txt

```
4
5
6
seven
3
```

p1.cpp

```
int main()
{
  string s, r;

  while (cin >> s) {
    r += s;
  }
  cout << r.size() << endl;
  return 0;
}
```

p2.cpp

```
int main()
{
  string s;
  vector <string> v;
  size_t i;
  int total;

  while (cin >> s) v.push_back(s);
  total = 0;
  for (i = 1; i < v.size(); i++) {
    total += (v[i][0] - v[i-1][0]);
  }
  cout << total << endl;
  return 0;
}
```

p3.cpp

```
int main()
{
  int i;
  int total;

  total = 0;
  while (!cin.fail()) {
     cin >> i;
     total++;
  }
  cout << total << endl;
  return 0;
}
```

Clicker Answers

Question 1:

The program reads six strings:

1. "Dear" -- 4 characters.
2. "Earl," -- 5 characters (the comma counts).
3. "Great" -- 5 characters
4. "Job!" -- 4 characters (the exclamation point counts).
5. "Love" -- 4 characters
6. "Madison" -- 7 characters

Thus, **r** will be the sum of the characters. The answer is 29.

Question 2:

This reads in the same six strings. It then sums up the difference between each adjacent pair of first characters:

1. ('E' - 'D') = 1.
2. ('G' - 'E') = 2.
3. ('J' - 'G') = 3.
4. ('L' - 'J') = 2.
5. ('M' - 'L') = 1.

The sum is 9.

Question 3:

Does this question seem familiar? It should -- it's pretty much the same as the **eof()** question from the last set. **cin.fail()** doesn't return **true** until you try to read "seven". Thus, that **while** loop is exectued four times -- the answer is 4.