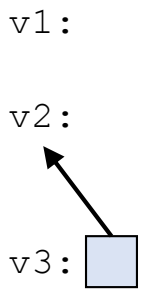
Behold the program to the right. We compile it to the file **a.out** and then we run it with:

```
UNIX> echo 30 50 70 | ./a.out
```

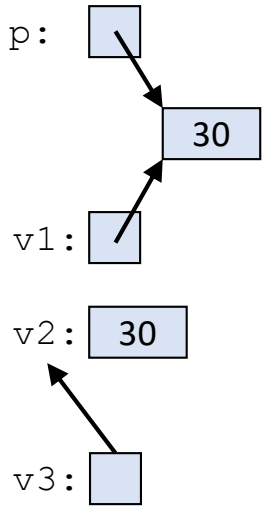
- **Question 1**: What is the first line of output?
- **Question 2**: What is the second line of output?
- **Question 3**: What is the third line of output?
- **Question 4**: What is the fourth line of output?
- **Question 5**: What is the fifth line of output?
- **Question 6**: What is the sixth line of output?
- **Question 7**: What is the seventh line of output?
- **Question 8**: What is the eighth line of output? Enter a dash if there is no eighth line.
- **Question 9**: What is the nine line of output? Enter a dash if there is no ninth line.

```
#include <iostream>
#include <vector>
using namespace std;

int main()
{
  vector <int *> v1;
  vector <int> v2;
  vector <int> *v3;
  int i;
  int *p;

  v3 = &v2;
  while (cin >> i) {
    p = new int;
    *p = i;
    v1.push_back(p);
    v2.push_back(*p);
  }

  for (i = 0; i < v1.size(); i++) *(v1[i]) += 2;
  for (i = 0; i < v2.size(); i++) v2[i] += 10;

  for (i = 0; i < v1.size(); i++) cout << *(v1[i]) << endl;
  for (i = 0; i < v2.size(); i++) cout << v2[i] << endl;
  for (i = 0; i < v3->size(); i++) cout << v3->at(i) << endl;
  return 0;
}
```

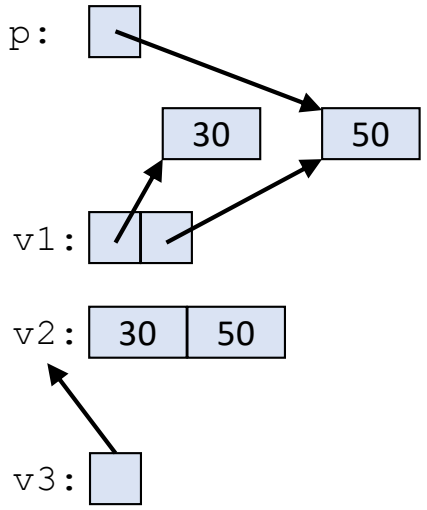
We start with all three vectors being empty, then v3 points to v2:



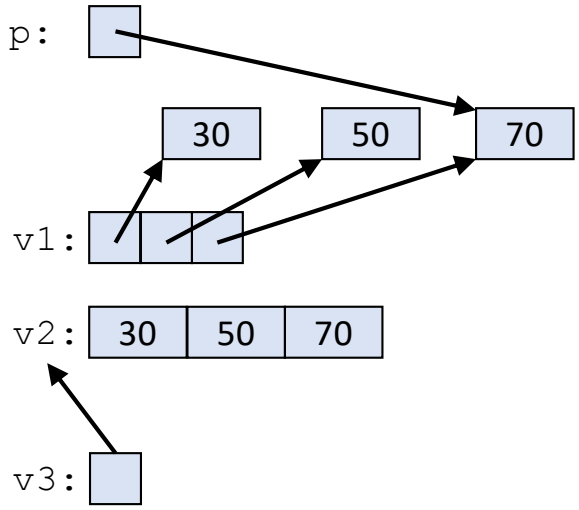
We then read 30. A new integer is allocated and set to 30. A pointer to that is put onto v1,
And a copy of it is put onto v2:



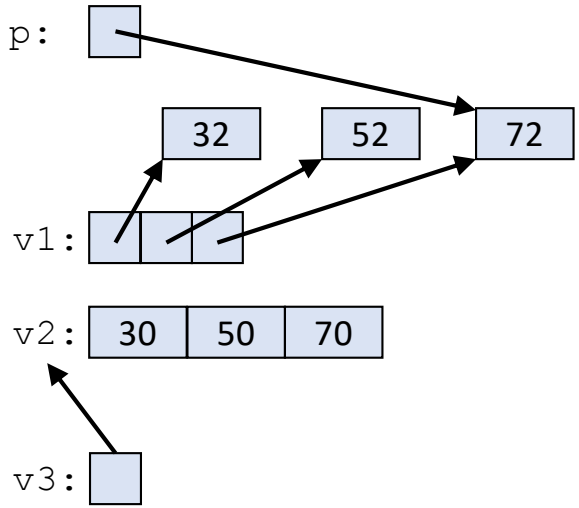
We then read 50. A new integer is allocated and set to 50. A pointer to that is put onto v1,
And a copy of it is put onto v2:



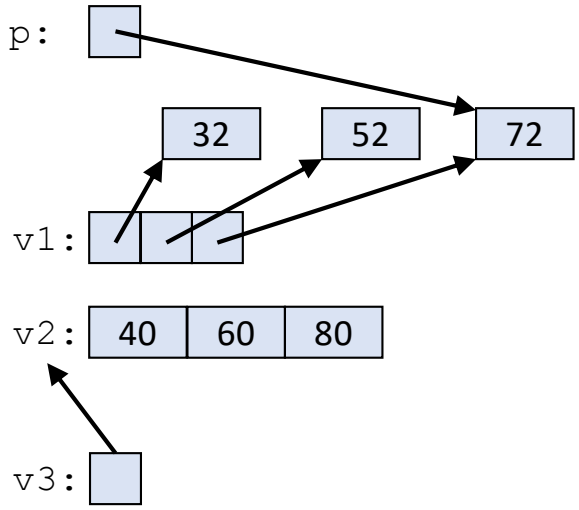
We then read 70. A new integer is allocated and set to 70. A pointer to that is put onto v1,
And a copy of it is put onto v2:



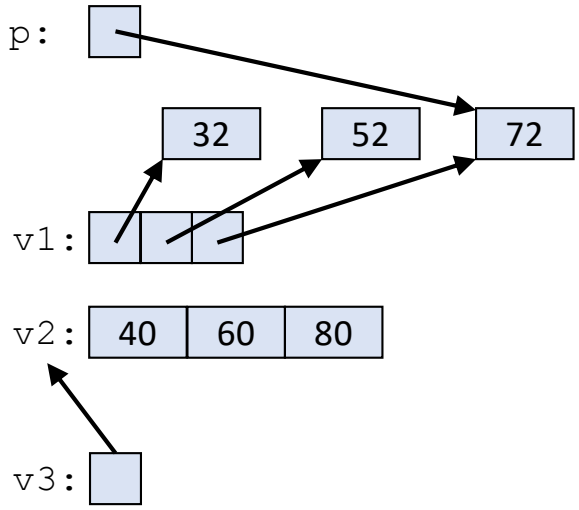
We add two to every value pointed to by v1:



We add 10 to every value in v2:



Now we print out three values for v1, v2 and v3:



32
52
72
40
60
80
40
60
80