1. A group of 13 consumers are considering whether to hook up to a new computer network. Consumer 1 has Initial Value 1, consumer 2 has Initial Value 2, and so on up to consumer 13 who has Initial Value 13. Each consumer’s Buyer Value for belonging to the network is equal to her Initial Value times the total number of consumers who hook up to the network. What is the highest price at which 9 consumers could hook up to the market and all either make a profit or break even?

(a) $40
(b) $42
(c) $45
(d) $47
(e) $43

2. Suppose that the cost of hooking up to the new computer network described in the previous problem is $45 and that nobody will sign up for the network unless at the time he signs up, his Buyer Value is at least $45. How many people will sign up?

(a) 0.
(b) 6
(c) 8
(d) 9
(e) 7
3. Suppose that the price of hooking up to the network discussed in the previous two problems is $45. In the group of 13 people, the 4 people with highest initial values are “optimists” and will hook up to the network whether or not their Buyer Values exceed the price at the time they make their purchase. The remaining 9 people are “conservatives” who will sign up if and only if their Buyer Values just after they have signed up are at least $45.

(a) Nobody except the optimists will hook up and all of the optimists will lose money.
(b) Nobody except the optimists will hook up. Some of them will make money and some will lose money.
(c) Once the optimists have hooked up, others will hook up until all 13 people are connected to the network.
(d) Once the optimists have signed up, others will hook up until 9 people are connected to the network, while 4 people will never hook up.
(e) Once the optimists have hooked up, others will hook up until 7 people have hooked up. The remaining people will never hook up.

**Answers:** 1 C 2 A 3 D