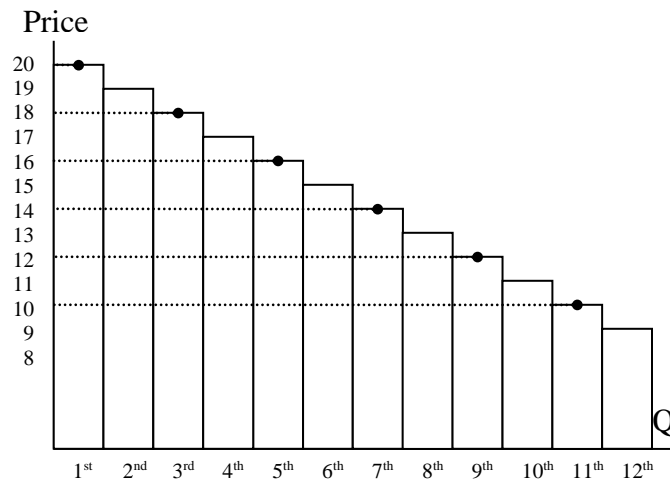
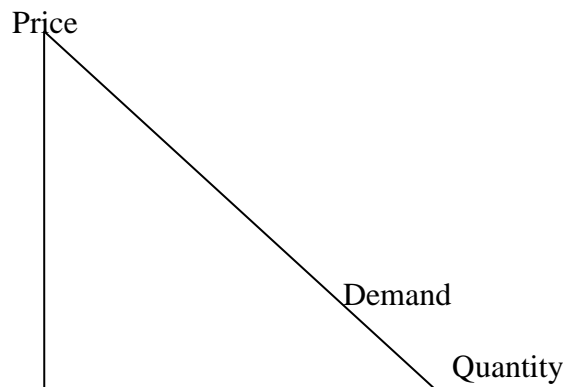


## LECTURE 04: BASICS OF SUPPLY AND DEMAND

- I. A trading game
- II. Demand
  - a. The neoclassical framework leads us nicely to the notion of equilibrium—the point at which no one can be better off by changing his or her behavior.
    - i. This is notably similar to the notion that people act until marginal cost = marginal benefit.

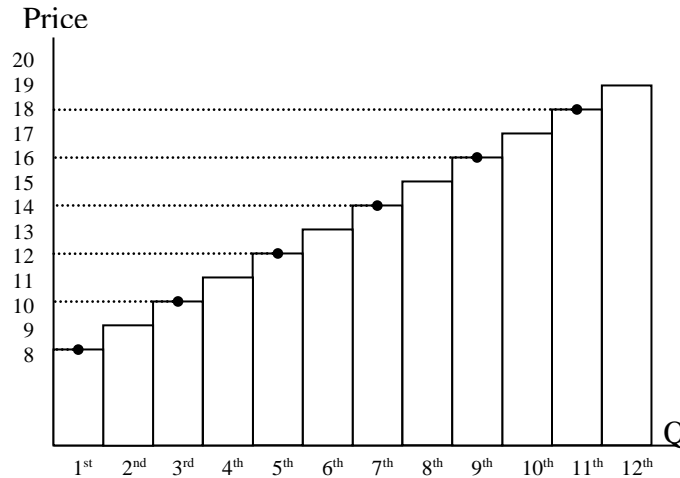


- b. An important term in this analysis is *reservation price*—the maximum someone is willing to pay for something. It is essentially the same as a person’s marginal benefit of something.
- c. Recall from last time when we explored marginal benefit. We can summarize a person’s marginal utilities (reservation price) for oranges with a diagram.

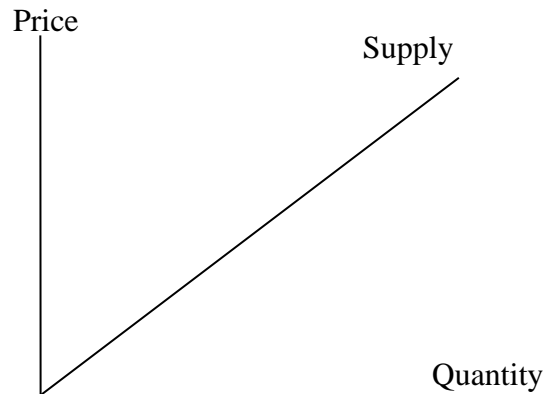


- d. Now, instead of focusing on one person, consider *everyone* in the whole of a market, such as the market for socks or chicken. As each person's marginal utility fills the graph, the marginal benefits resemble a line. This is the demand curve.
- e. Note how this diagram makes intuitive sense. As the price of something moves in one direction, the quantity people demand will move in the opposite direction. This is called the *Law of Demand*.

### III. Supply



- a. Same goes with MC.

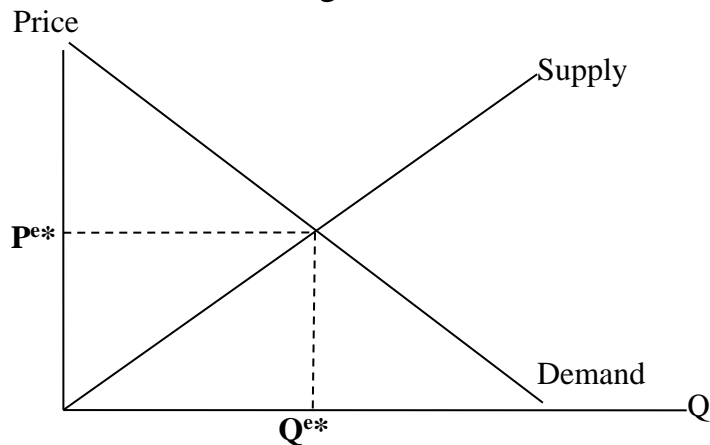


- b. And once again we can expand our thinking to the whole a market with all the sellers. Like our previous example, we come up with a smooth line but this time of marginal costs. Economists call this the supply curve.
- c. Note how this diagram also makes intuitive sense. As the price of something changes in one direction, the amount people will supply will move in that same direction. This is called the *Law of Supply*.

- d. The supply of labor is much like a standard supply curve. The more people are paid, the more hours they are willing to work.
  - i. For individuals this is not always the case, since supplying something requires time and effort (something people prefer using for their own ends). If you are paid \$1,000 an hour to mow lawns, you would probably work only an hour a day.
  - ii. But for the *market*, the supply of labor slopes up. If lawn mowing is being paid so much an hour, *many* people would leave their current job and enter the market for lawn mowing.

#### IV. Equilibrium

- a. Not surprisingly, the supply and demand curves can be combined into a single diagram. This diagram is perhaps the most important and insight in all of economics. It forms the foundation of much of economic thinking.



- b. Remember that because supply and demand curves also double as marginal cost and marginal benefit curves, the same rules apply: people consume until marginal cost equals marginal benefit. Thus we achieve an equilibrium where  $P^e$  is the *equilibrium* price and  $Q^e$  is the *equilibrium* quantity.
- c. The resulting price and quantity is also what we, as economists, would like to see. There is no waste at these points. Thus, this is also the *optimal* price and *optimal* quantity. We indicate optimums with a star (\*).
  - i. If you've taken 201, you might not have made this distinction (you certainly didn't if you took it with me) because so often in 201, the equilibrium is the optimum (as it is here).

- ii. But in this class, we will find that the most efficient possibility isn't the equilibrium result so it's useful to establish the notation that distinguishes them.