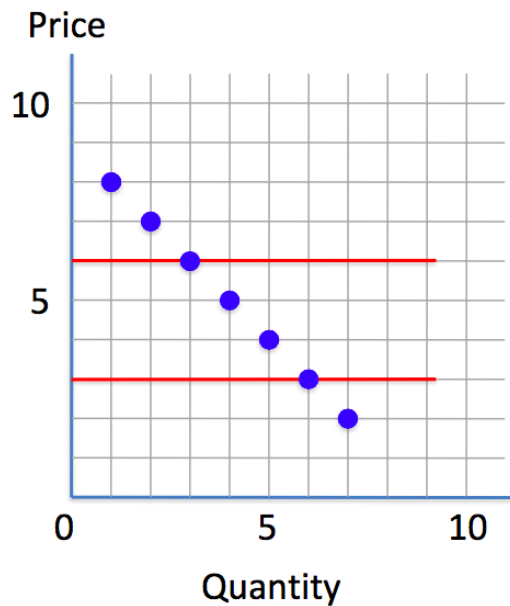


Consumer Surplus

Yisroel Cahn

April 1, 2022

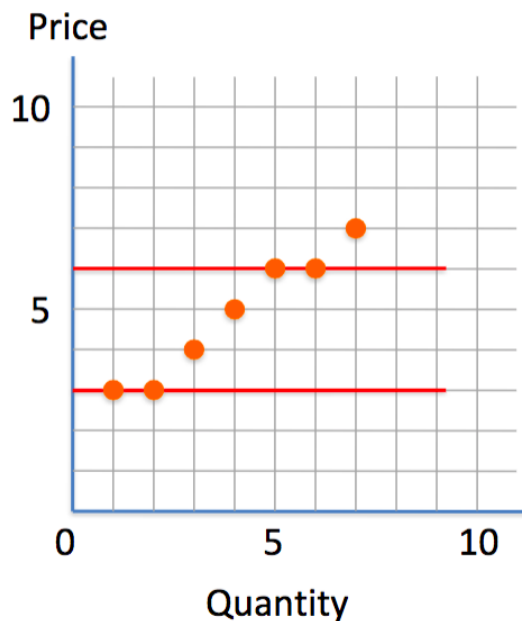
Demand Curve



Maximum willing to pay

- Ali: \$8
- Bob: \$7
- Carl: \$6
- Don: \$5
- Eli: \$4
- Flo: \$3
- Gigi: \$2

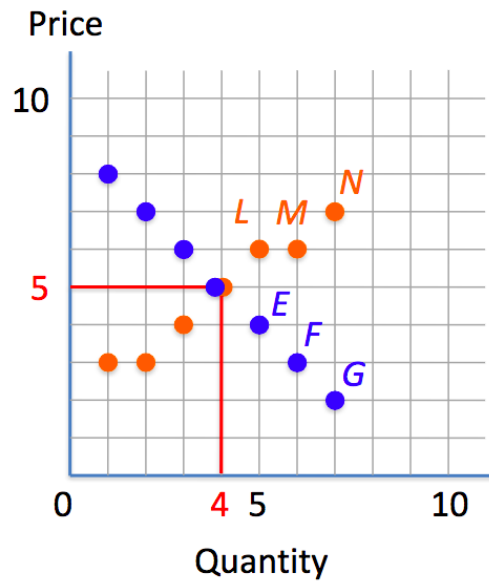
Supply Curve



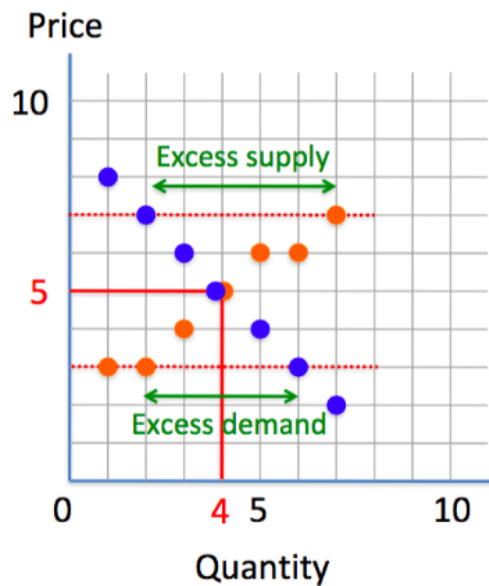
Minimum willing to accept

- Hal: \$3
- Ila: \$3
- Jon: \$4
- Kay: \$5
- Lee: \$6
- Matt: \$6
- Nell: \$7

Market Equilibrium



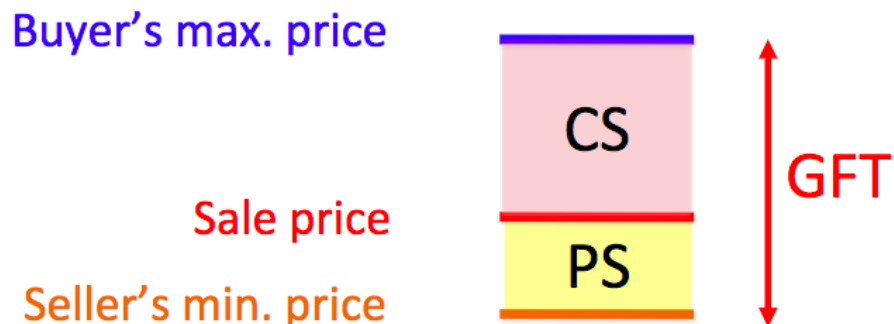
Market Equilibrium



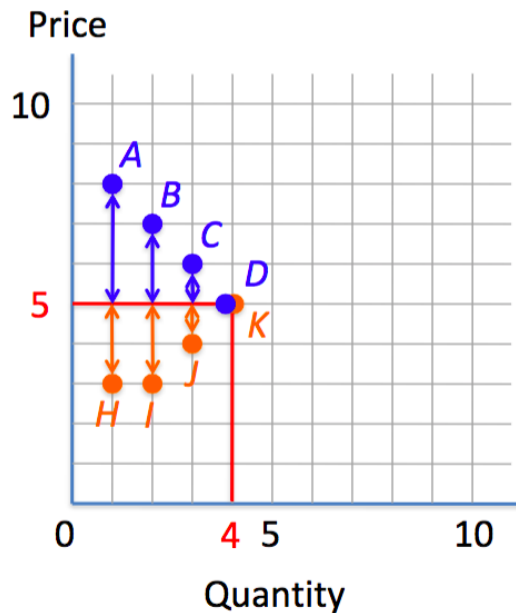
Normative Analysis

- Is this a “good” outcome?

Gains From Trade



Economic Surplus



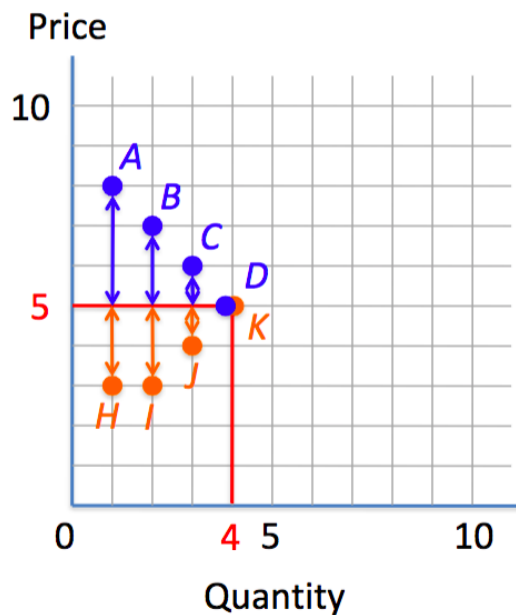
- Consumer surplus:

$CS = (\text{max. willingness to pay for 1st unit} - \text{market price})$
 $+ (\text{max. willingness to pay for 2nd unit} - \text{market price})$
 $+ \dots +$
 $+ (\text{max. willingness to pay for nth unit} - \text{market price})$

- Producer surplus:

$PS = (\text{market price} - \text{min. willingness to part for 1st unit})$
 $+ (\text{market price} - \text{min. willingness to part for 2nd unit})$
 $+ \dots +$
 $+ (\text{market price} - \text{min. willingness to part for nth unit})$

Economic Surplus



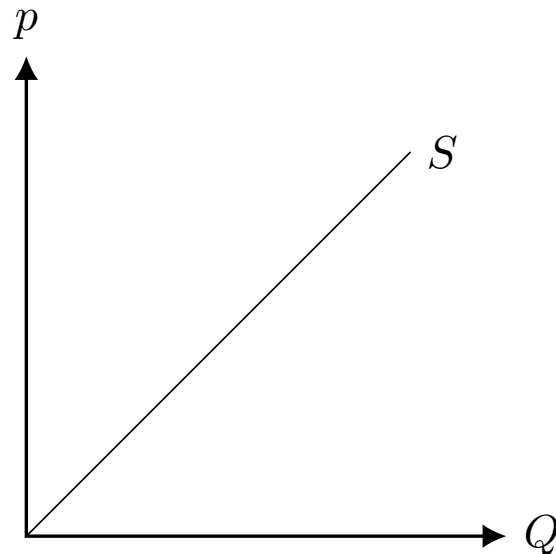
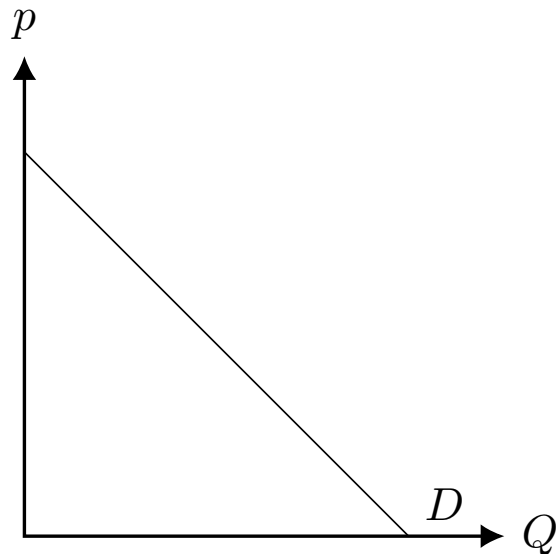
- Consumer surplus:

$$CS = (8-5) + (7-5) = (6-5) = 6$$

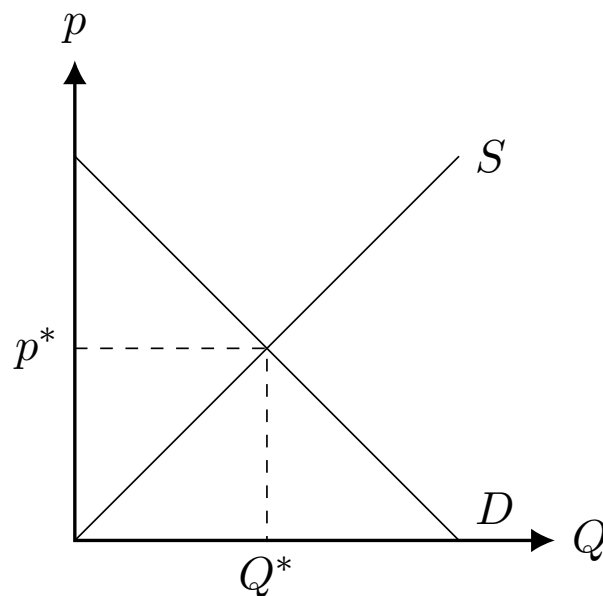
- Producer surplus:

$$PS = (5-3) + (5-3) = (5-4) = 5$$

Continuous Supply and Demand

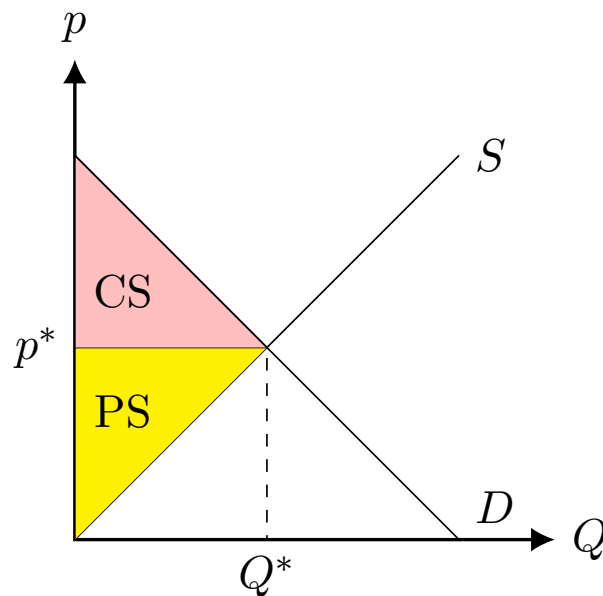


Continuous Supply and Demand



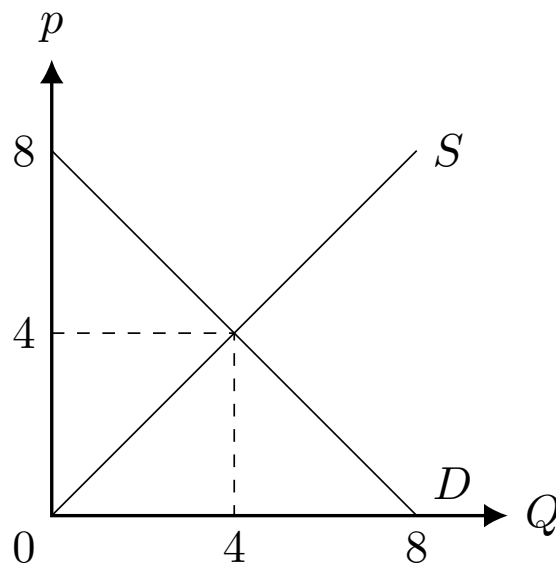
- This is the supply and demand curve with equilibrium price p^* and quantity Q^* .

Economic Surplus



- Area of a triangle = $\frac{1}{2}$ Base \cdot Height

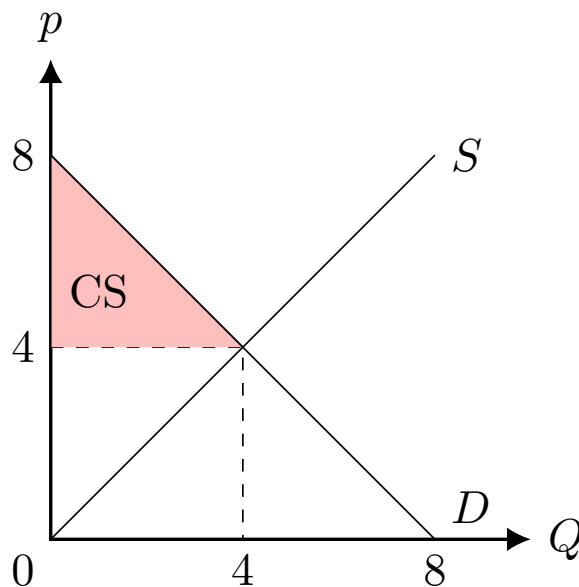
Practice Problem



What is the consumer surplus?

- (a) 4
- (b) 8
- (c) 10
- (d) 12

Answer



(b) Area of pink triangle $= \frac{1}{2}(4 \cdot 4) = 8$.