Introduction (2)
Competitive Markets and Market Failure: a Natural Experiment

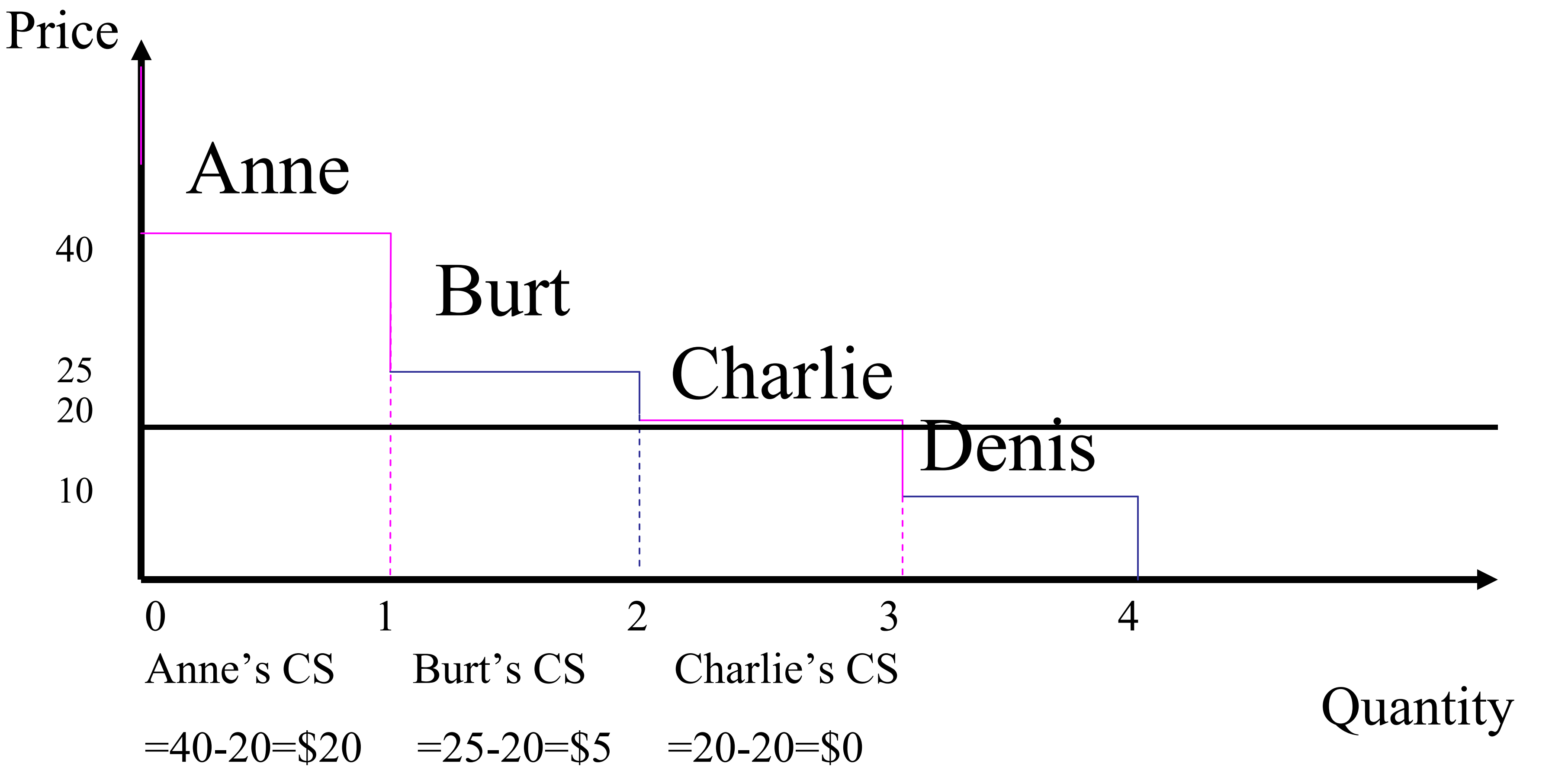
Market for Used Econ Book

Person	Willingness to pay	Price	Consumer surplus
Anne	$40	$20	
Burt	$25	$20	
Charlie	$20	$20	
Denis	$10	$20	
TOTAL			

Computing Consumer Surplus

Person	Willingness to pay	Price	Consumer surplus
Anne	$40	$20	$20
Burt	$25	$20	$5
Charlie	$20	$20	$0
Denis	$10	$20	--
TOTAL			$25

Consumer Surplus, Graphically



Definition: Consumer Surplus

Consumer surplus is the difference between a consumer's willingness to pay and the price consumer actually pays

- A consumer's *willingness to pay* is the maximum amount that a consumer is willing to pay to obtain a good
- The good's *price* is typically determined by the forces of supply and demand

Consumer surplus measures the benefits of all consumers, net of the price paid – it is equal to the area between the market demand curve and the price

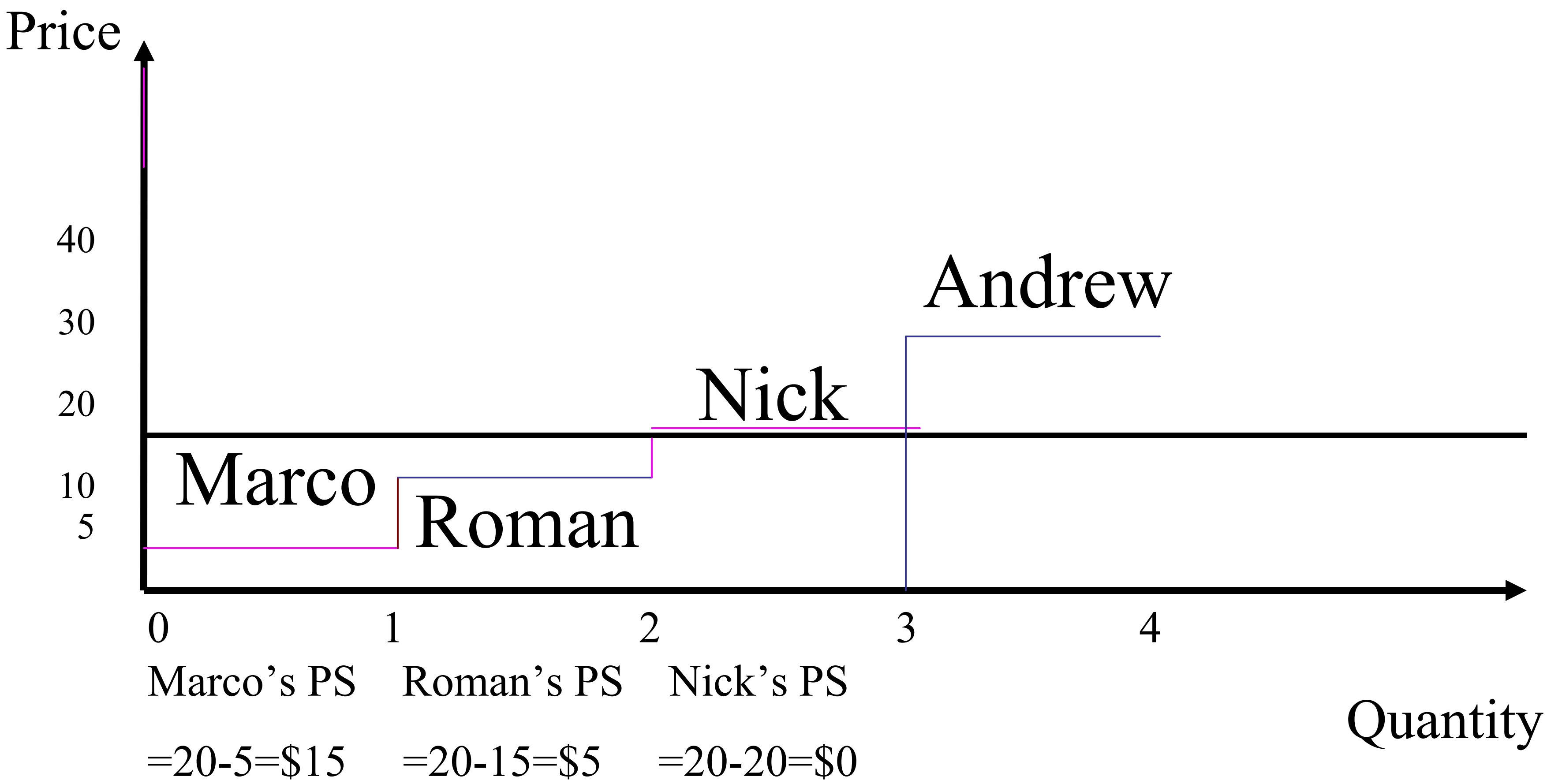
Definition: Producer Surplus

Producer surplus is the difference between the price obtained and a seller's willingness to sell

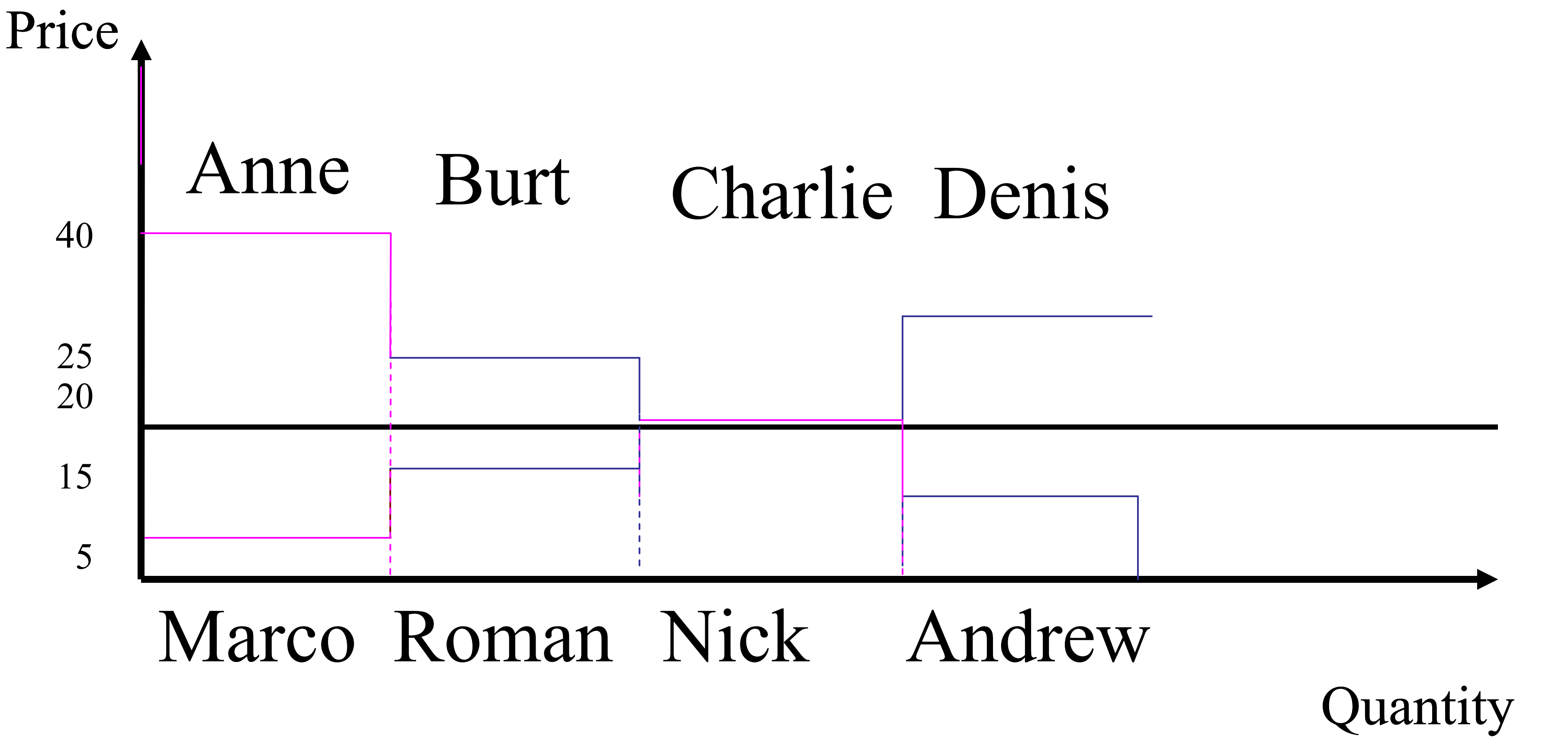
- The good's *price* is typically determined by the forces of supply and demand
- The *willingness to sell* is the value of everything the seller has to give up when selling the good (= marginal cost of production)

Producer surplus measures the benefits that producers derive from producing the good at a particular price – it is equal to the area between the price and the market supply curve

Producer Surplus, Graphically



Social Welfare in Perfect Competition



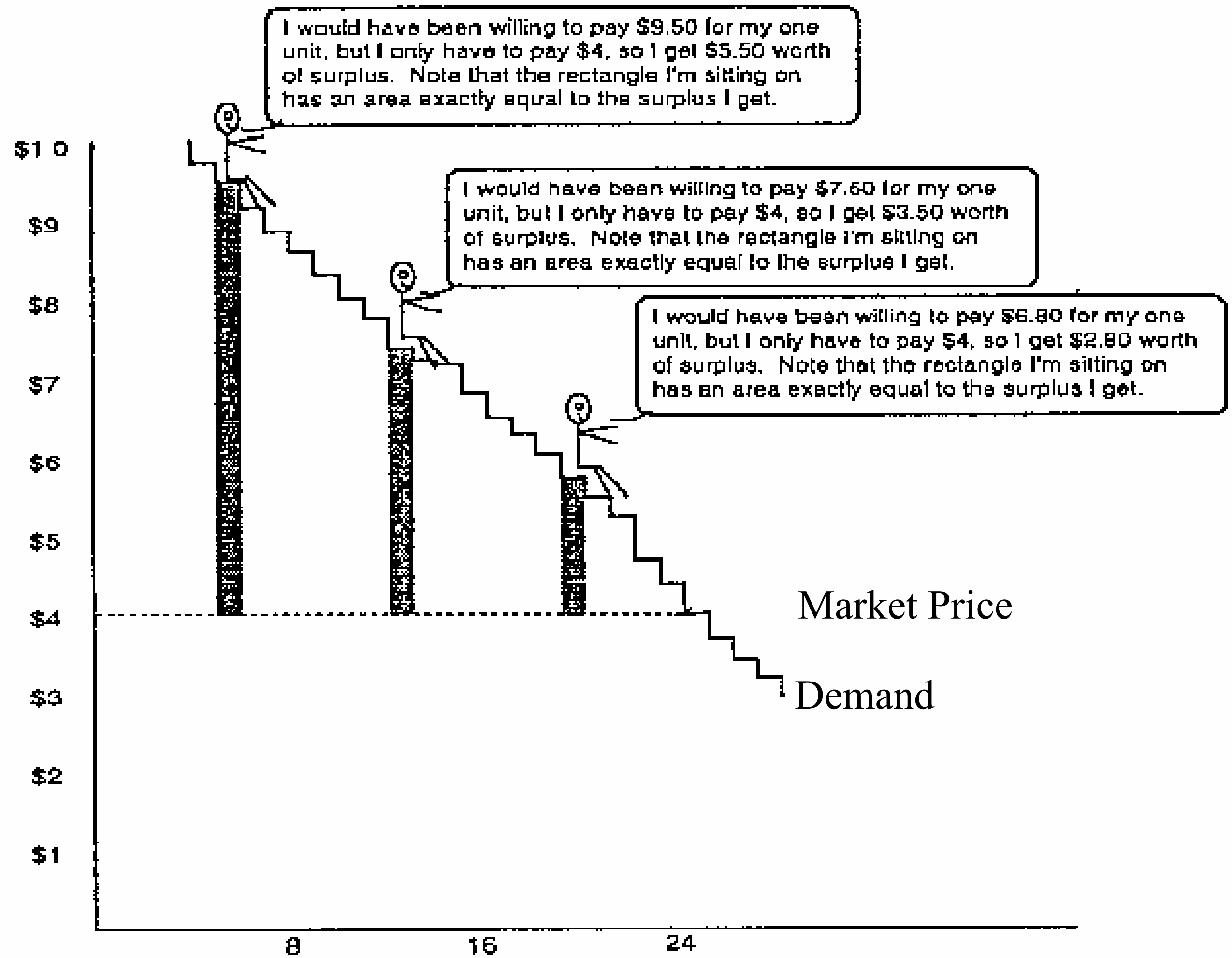


Figure *The surpluses enjoyed by three consumers.*

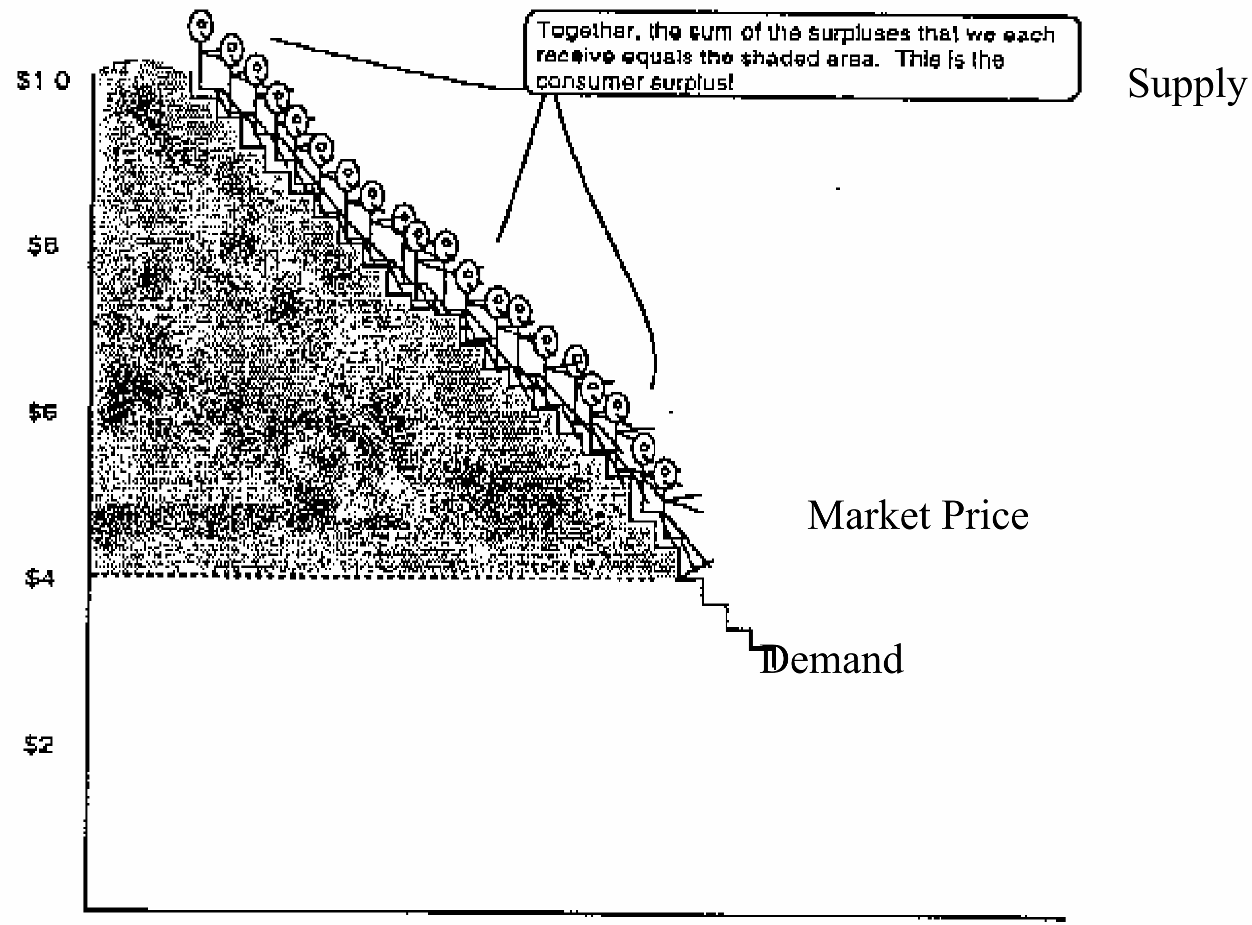
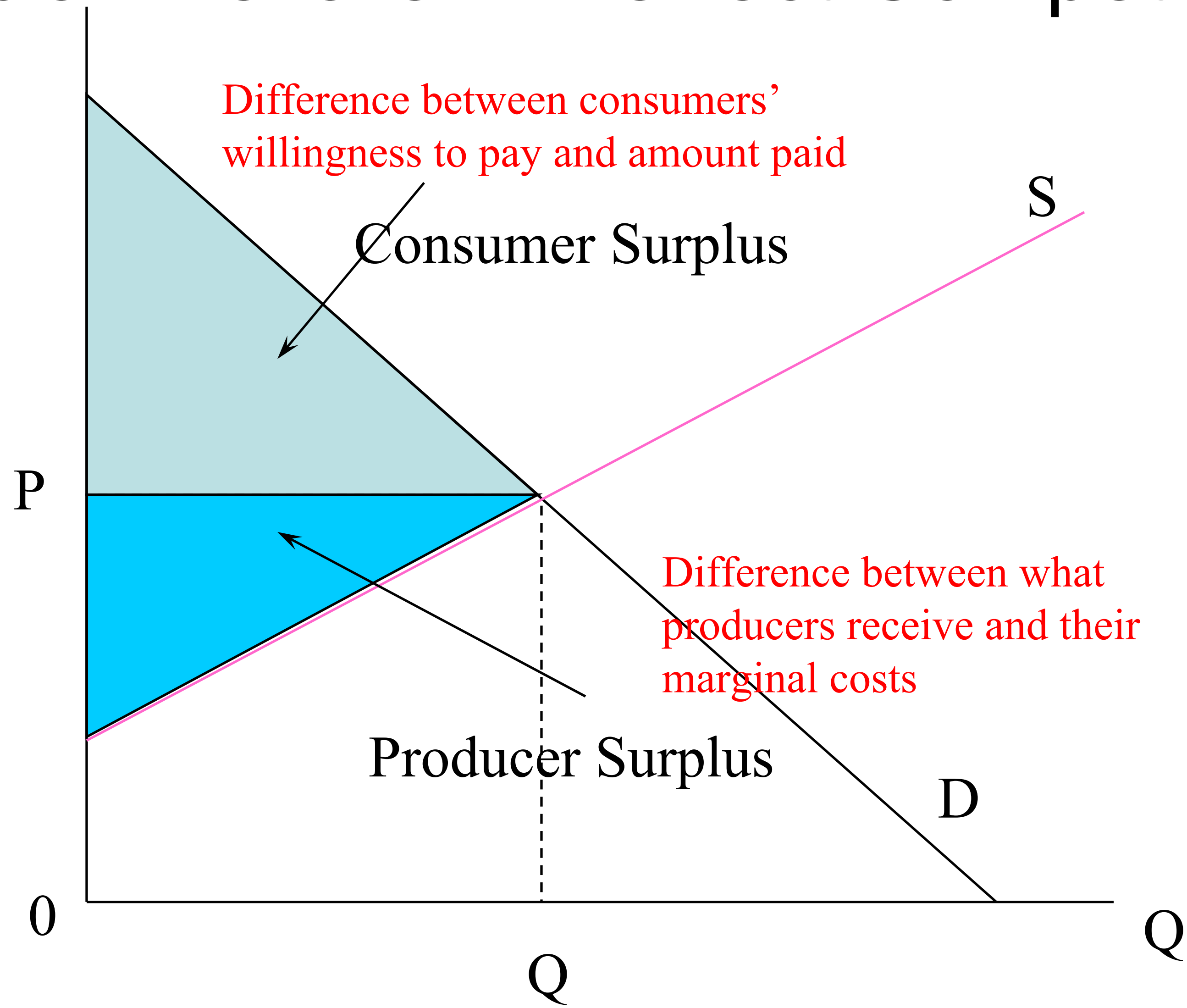


Figure The surpluses enjoyed by all the consumers; i.e., the consumer surplus.

Social Welfare in Perfect Competition



Social Welfare = Consumer + Producer Surplus

Efficiency of Perfectly Competitive Markets

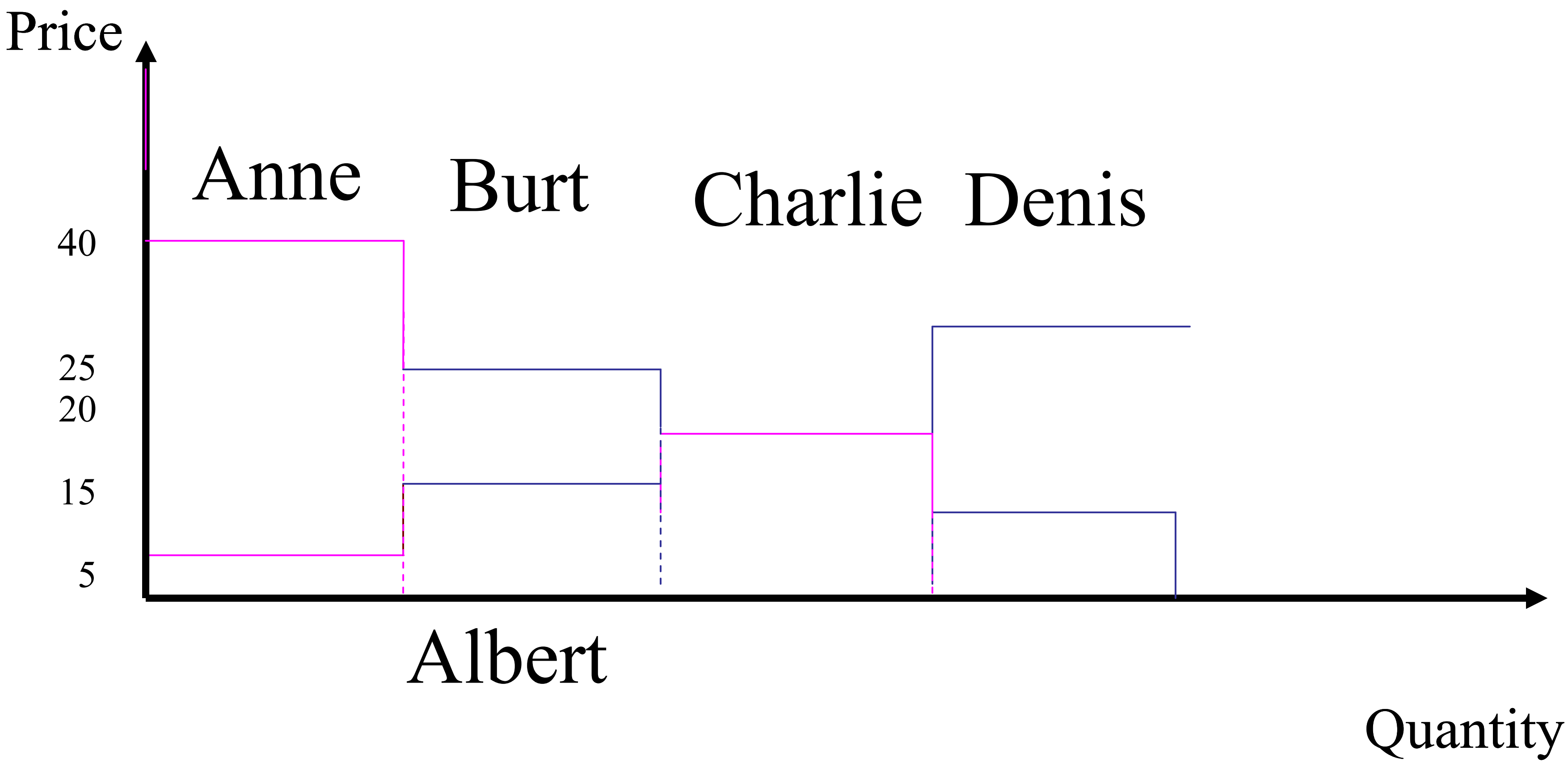
<u>Perfectly competitive</u> markets are Pareto efficient:

– Market outcome cannot be replaced by another that would increase the welfare of an individual without harming an other

– Buyers with highest willingness to pay obtain the goods

– Sellers with lowest costs produce the goods

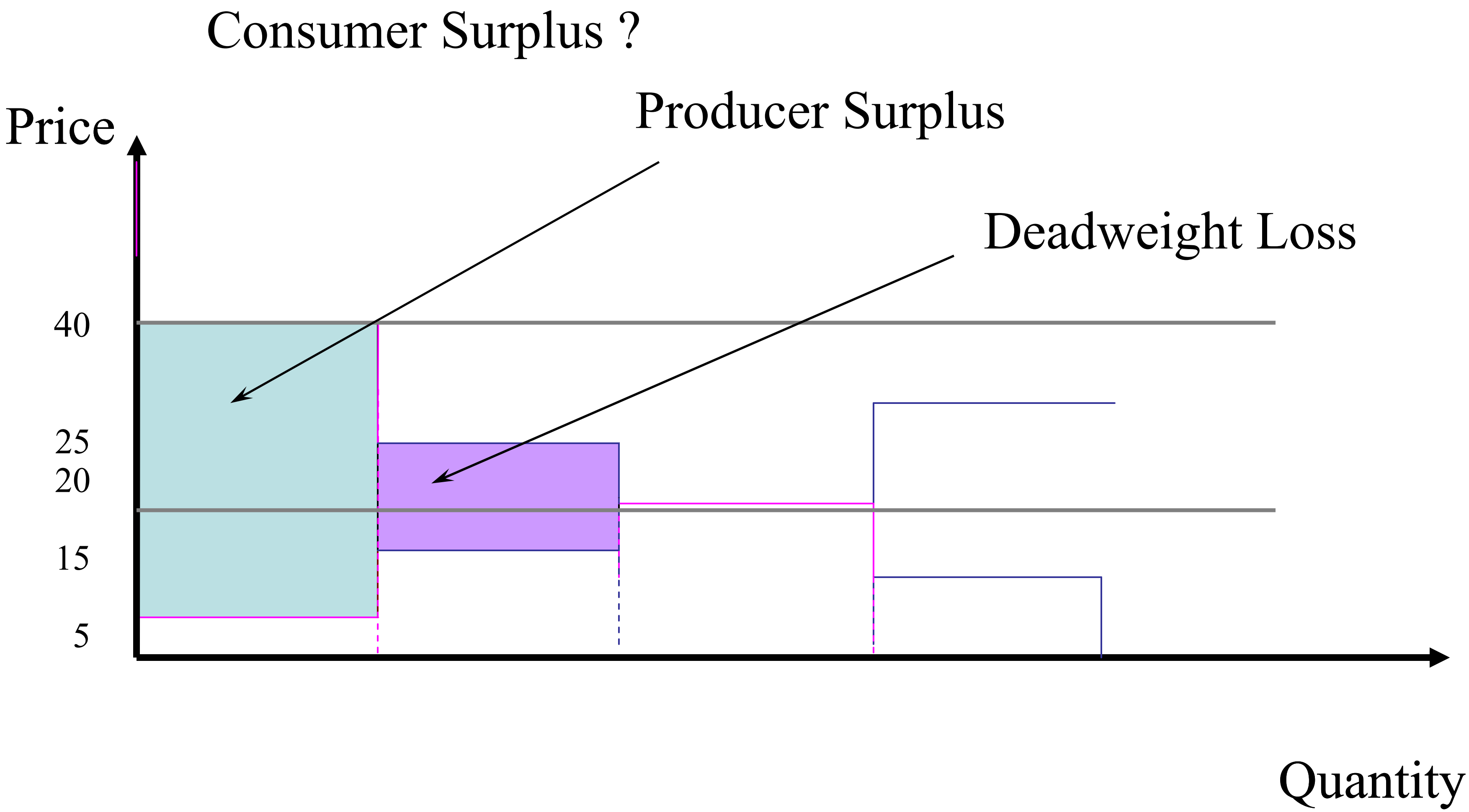
Monopoly



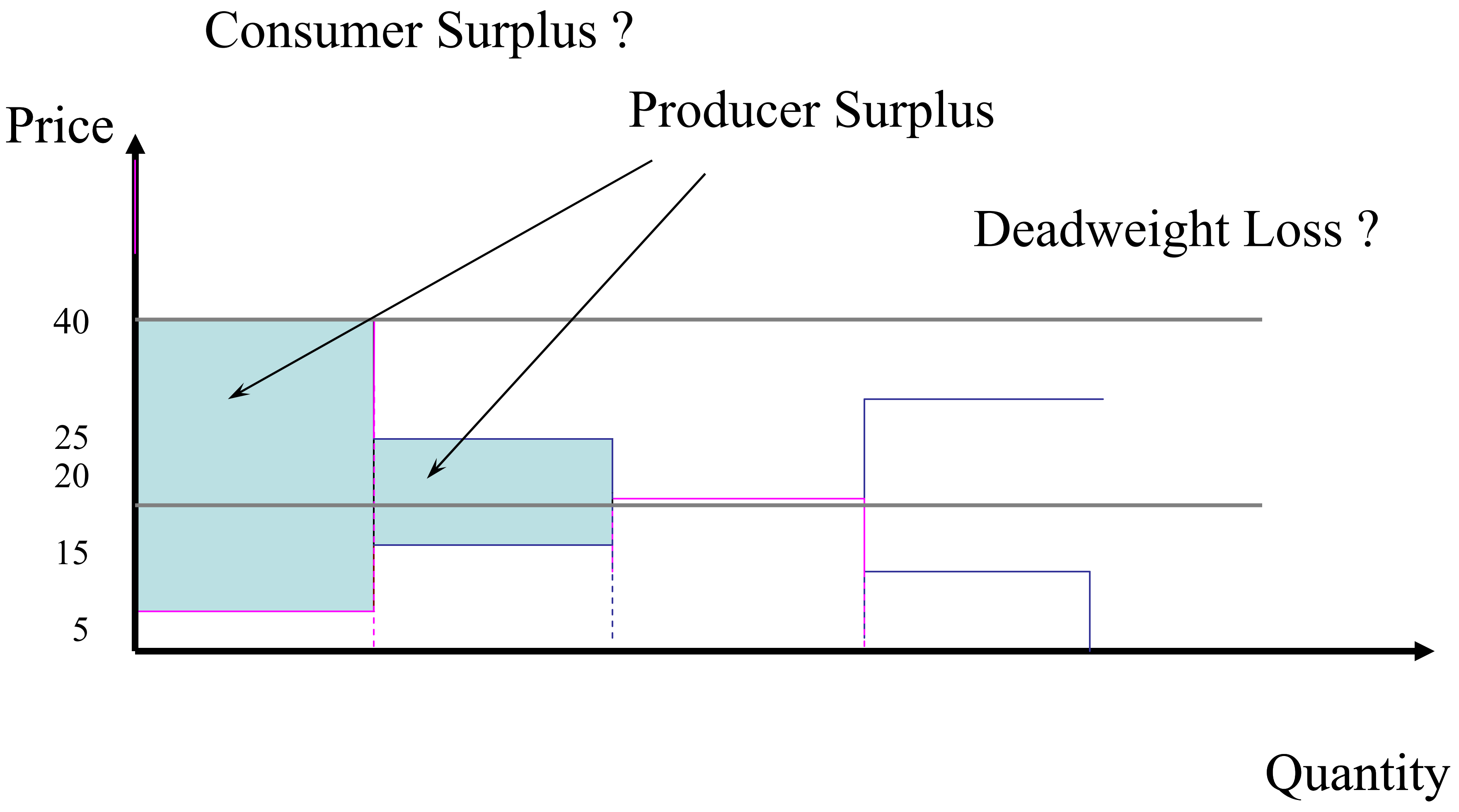
Monopoly Pricing

Price	Units sold	Revenue	Costs	Profits
$50	0	0	0	0
$40	1	$40	$5	$35
$25	2	$50	$20	$30
$20	3	$60	$35	$25
$10	4	0	$65	-$65

Monopoly Pricing



Price Discrimination



Perfect (1^o) Price Discrimination

What if monopolist:

- knew the willingness to pay of each consumer,
- could charge different price for different units, and
- consumers could not arbitrage?

Monopolist would then:

- extract all consumer surplus…
- but sell socially optimal quantity!

<u>Problem</u>: Typically, monopolists <u>cannot</u> perfectly price discriminate, so will introduce distortions in order to maximize profits!