


2. Individual demand and consumer surplus

Consider the market for apartments. The market price of each apartment is \$40,000, and all buyers demand at most one apartment each.

Suppose that Joanna is the only consumer in the apartment market. Her willingness to pay for an apartment is \$70,000. Based on Joanna's willingness to pay, her demand curve is plotted on the following graph. Shade the area representing her consumer surplus using the green rectangle (triangle symbols).

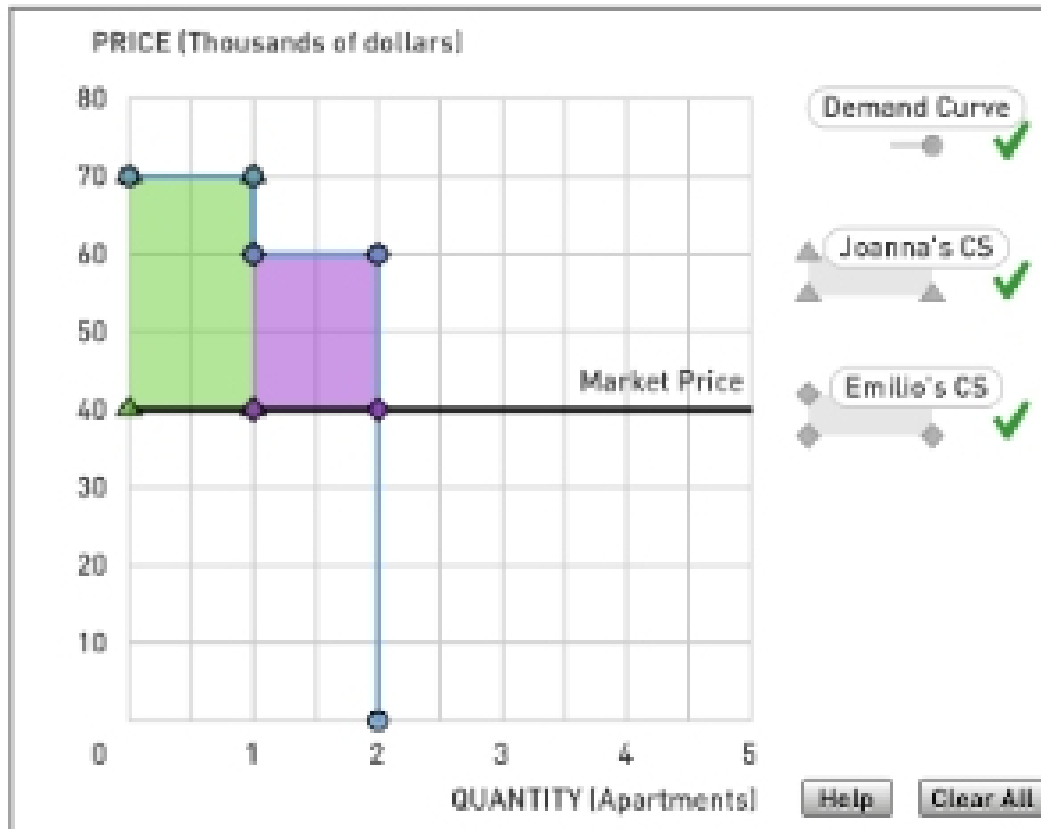


Explanation:

Open 

Now, suppose another buyer, Emilio, enters the market for apartments with a willingness to pay \$60,000.

Based on Emilio's and Joanna's respective willingness to pay, plot the market demand curve on the following graph using the blue points (circle symbol). Line segments will automatically connect the points. Remember to plot from left to right, starting with a point on the vertical axis and ending with a point on the horizontal axis. Next, shade Joanna's consumer surplus (CS) using the green rectangle (triangle symbols), and shade Emilio's consumer surplus using the purple rectangle (diamond symbols).



Answer



Explanation:

Close ^

Each horizontal segment (each step) of the curve corresponds to one potential buyer's willingness to pay, starting from the highest to the lowest. The first step starts at Joanna's willingness to pay for an apartment, or \$70,000. The second step starts at Emilio's willingness to pay, or \$60,000. The demand curve intersects the horizontal axis at a quantity of 2, since Joanna and Emilio want one apartment each.

Consumer surplus is equal to the area below the demand curve and above the market price. Joanna's consumer surplus is bounded from above by the demand curve at \$70,000 and from below by the market price of \$40,000. Likewise, Emilio's consumer surplus is bounded from above by the demand curve at \$60,000 and from below by the market price of \$40,000.

Alicia is willing to pay a total of only \$20,000 for an apartment. Keeping her maximum willingness to pay for an apartment in mind, which of the following statements about Alicia is most likely true?

- Alicia will buy the apartment for \$20,000, since the market price of \$40,000 doesn't matter to her.
- Alicia will not buy the apartment, because it would be worth less to her than its market price of \$40,000.
- Alicia will pay \$20,000 toward the price of the apartment today and agree to pay an additional \$20,000 one month from today.

Explanation:

Close ^

Consumer surplus is the difference between a buyer's willingness to pay and what the buyer actually pays. Consumers will not purchase a good if its market price is above their willingness to pay, because purchasing it would make them worse off. Thus, Alicia will not purchase the apartment because the market price of \$40,000 is greater than Alicia's willingness to pay \$20,000.