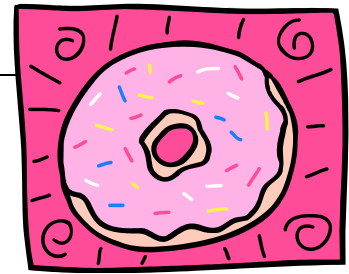# The Donut Shop

You recently started up a donut shop near Northwest High School (who doesn't like donuts, right?). After doing some extensive market research on donut prices in the area (eating lots and lots of donuts at Dunkin Donuts and Krispy Kreme), you figured out that donut prices in the area were between $0.25 and $0.50 each. You decide that at the $0.25 price you would be willing to sell 2000 donuts a day – it's a lot of work to make donuts and you have school work and a life to think about! At the $0.50 price, however, you would be willing to get up an hour earlier and make 5000 donuts – trading off an extra hour of sleep for more profits from the business.

Therefore, your **supply schedule** for donuts would look something like this:

Price Per Donut	Quantity of Donuts Supplied
$0.25	2000
$0.50	5000

1. Based on the supply schedule above, draw your donut shop's supply curve on the back of this page. Make sure to label your supply curve with an "S" for supply.

You start out trying to sell 5000 donuts at $0.50 each. Business goes pretty well for the first week, but you notice that you always have a bunch of extra donuts left over at the end of the day. Not wanting to waste those extra donuts (and potential profits), you decide to find out if you are charging too high of a price. After questioning a lot of people in the community, you find out how many donuts people tend to want (demand) at certain prices. Here is the resulting **demand schedule**:

Price Per Donut	Quantity of Donuts Demanded
$0.25	5500
$0.50	2500

2. Using the same graph as in #1, draw the demand curve for donuts based on the demand schedule above. Make sure to label your demand curve with a "D" for demand.

3. According to the supply and demand curves that you drew, estimate what the equilibrium price and equilibrium quantity would be for the donuts.

4. At the price of $0.50 that you decided to charge, what does the graph indicate will be the quantity of left-over donuts each day (the donut surplus)?

5. If you decided to sell the donuts at $0.25 each, what would be the number of donuts that you would come up short (the donut shortage)?

6. What is the most profitable price for your shop to sell donuts at, if you want to minimize left-overs (which cost money to make)?

The Donut Shop

Price

Quantity