

## Problem Set 2.5

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### *Yuppie Scum Bumper Stickers*

When Lucy Luginut got out of prison, her husband Diesel decided that they would capitalize on her newly developed skills related to making license plates and go into the bumper sticker business. They decided to make a metal bumper sticker that buyers could bolt to their bumpers or hang from their gun racks. It said: "DIE YUPPIE SCUM."

They studied the market and found that if they charged

\$1.00, they would sell 10,000

\$1.50, they would sell 8,000

\$2.00, they would sell 7,000

\$2.50, they would sell 6,500

\$3.00, they would sell 6,250

\$3.50, they would sell 6,125

\$4.00, they would sell 6,000

\$4.50, they would sell 5,500

\$5.00, they would sell 4,500

\$5.50, they would sell 3,000

\$6.00, they would sell 2

Lucy and Diesel initially put their bumper sticker on the market for \$2.50. They can produce any quantity of bumper stickers at a unit cost of \$0.50 each and decided to hire you as a consultant to advise them about pricing.

1. Calculate the total revenue earned at each of the prices listed above.



# Problem Set 2.6

## A Parking Lot Problem

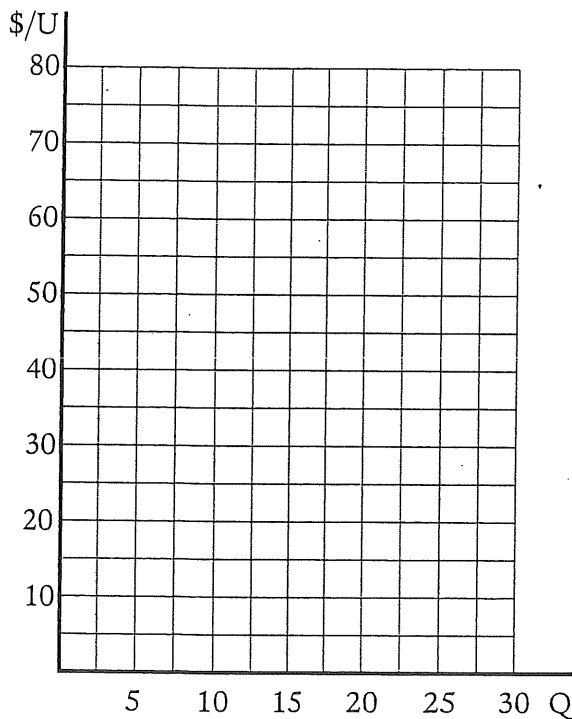
**WARNING:** This problem set is not intended for the casual economics student. It contains material that may cause you to think! Be prepared to graph, analyze, calculate, and write short answers. User discretion is advised.

Once upon a time there was a school that let many students park their cars in its lot when they attended school. Then one day a big bad construction project was undertaken to add on to the school, and most student parking was eliminated.

Near the school there was a church that decided to help the students out of this predicament (and themselves to a few bucks.) The church figured that if they charged

- \$50/month, 1 student would park
- \$34/month, 2 students would park
- \$28/month, 3 students would park
- \$17/month, 7 students would park
- \$10/month, 11 students would park
- \$6/month, 14 students would park
- \$2/month, 19 students would park
- \$1/month, 25 students would park

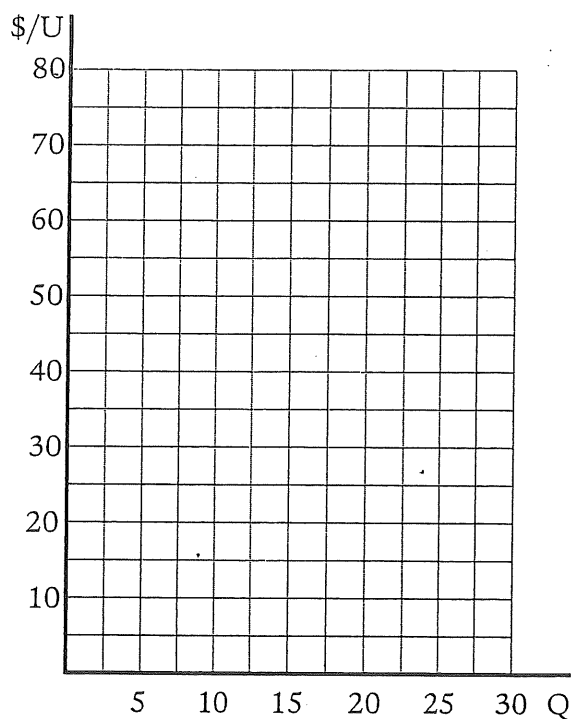
- Plot this information about the demand for parking spaces on the following graph. Label your line *D*.



Now into our story comes the Wizard of Floz. In his infinite wisdom, he bans parking on all Village streets within a one-mile radius of the school (an option that students had enjoyed before the ban). There is much rejoicing at the church and many hallelujahs are being said because now if they charged

\$75/month, 1 student would park  
 \$58/month, 3 students would park  
 \$46/month, 6 students would park  
 \$36/month, 10 students would park  
 \$25/month, 15 students would park  
 \$18/month, 20 students would park  
 \$12/month, 25 students would park  
 \$10/month, 29 students would park

2. Plot this information on your graph and label it  $D_1$ .



As the plot thickens, we further discover that the church has 15 available spaces each month.

3. Plot the unusual looking supply curve that results on your graph, and locate the equilibrium price.

4. Comment on the wisdom of a student petition to force the church to charge \$10.00/month. What problem would arise? How could the church solve this problem without raising the price? Would you favor the proposed "price freeze" at \$10/month? Why or why not?

5. To fill in the blanks that follow, calculate the total revenue for the church at each price and indicate whether demand is elastic or inelastic in the range between the prices.

If the church lowered the price from \$75 to \$58, total revenue would go from \_\_\_\_\_ to \_\_\_\_\_

so demand is \_\_\_\_\_

\$58 to \$46, total revenue would go from \_\_\_\_\_ to \_\_\_\_\_

so demand is \_\_\_\_\_

\$46 to \$36, total revenue would go from \_\_\_\_\_ to \_\_\_\_\_

so demand is \_\_\_\_\_

\$36 to \$25, total revenue would go from \_\_\_\_\_ to \_\_\_\_\_

so demand is \_\_\_\_\_

\$25 to \$18, total revenue would go from \_\_\_\_\_ to \_\_\_\_\_

so demand is \_\_\_\_\_

\$18 to \$12, total revenue would go from \_\_\_\_\_ to \_\_\_\_\_

so demand is \_\_\_\_\_

\$12 to \$10, total revenue would go from \_\_\_\_\_ to \_\_\_\_\_

so demand is \_\_\_\_\_

6. Why shouldn't the church charge the highest possible price (\$75)?

7. What is appealing to the church about charging the equilibrium price?
  
  
  
  
  
  
  
  
  
  
8. Why would the economics students (perhaps not all of them, but certainly all of the really intelligent, hard working, cool economics students) like the church to charge the equilibrium price?

Who would not like the church to charge the equilibrium price?

What would be created if the price were set above the equilibrium price? (Use the term from economics.)

What would be the size of it?

What would be created if the price were set below the equilibrium price? (Use the term from economics.)

What would be the size of it?