

Homework #3 (due Thursday)

- 1.) Using $Q_{Dx} = 80 - 4 \cdot P_x$, draw the demand curve by finding its two endpoints (P at $Q_D = 0$, and Q_D at $P = 0$). Then, choose two other points which are close together on the demand curve.
 - a.) plot the two points you have chosen on the demand curve
 - b.) calculate E_D from each of the two points
 - c.) calculate E_D using the midpoint ("arc elasticity") formula (Hint: your answer using the midpoint formula should be about midway between your two answers for b!)
 - d.) determine whether the demand curve is elastic or inelastic over the range of your selection of points-- *using the "total expenditure/revenue approach"* (p. 36). Show your work.
 - e.) choose two other points on this demand curve and repeat all of the above

- 2.) B&Z's questions 2.9a-c and 3.2. (Note that 2.9 gives you **% change in Q , not Q** —and be careful about ***which months you compare!***)

- 3.) Let $Y = \$210$, $P_1 = \$3$, and $P_2 = \$6$.
 - a.) Plot the two endpoints and one other point (with X_1 on the horizontal axis). Draw the budget constraint and calculate the slope of the budget constraint. Then, form the relevant equation—in terms of Y and then in terms of X_2 . What does the latter show?
 - b.) Let P_2 increase to $\$7$. Redo question 2a, drawing the original and new budget constraints.
 - c.) Let P_2 return to $\$6$ and let Y increase to $\$240$. Redo question 1a, drawing the original and new budget constraints.