

### In Class Work #3

October 5, 2018

1. The Acmeville Metropolitan Bus Service currently charges \$0.67 for an all-day ticket, and has an average of 472 riders a day. The bus company is not earning a profit, but according to their contract with the city, they cannot cut the number of buses on the road. They must therefore find a way to increase revenues.

The bus company is considering increasing the ticket price to \$0.78. The marketing department's studies indicate this price increase would reduce usage to 182 riders per day.

- (a) Calculate the absolute value of the price elasticity of demand for bus tickets using the simple percentage change method. *Round your answer to one decimal place.*
- (b) Tell me what is the correct formulation of this sentence given your answer to 1.A: "Demand is (elastic/inelastic), so (increasing/decreasing) ticket prices will increase revenue.

2. Google Play offer movies for rent off their platforms and lets say that the price for a regular (ie not a new release) movie goes from \$2.00 to \$2.21. The resulting change in quantity demanded on their mobile platform goes from 70,000 movies a month to 61,000 movies a month. Use the midpoint formula to tell me what is the Price Elasticity of Demand.

3. At the local Hannaford, peanut butter increases in price from \$3 a jar to \$4 a jar. This causes the quantity demanded for mayonnaise to increase from 44 units to 85 units. Calculate the cross-price elasticity between the two goods and identify how the goods are related(i.e. substitutes, compliments, or not related). Please use the midpoint method, and specify answers to one decimal place.

4. Dell is trying to figure out how to price their laptops. They previously said that they'd sell them for \$900 and 8,000,000 were supplied monthly. Now they are considering increasing the price to \$1,100 which (they project) increase the quantity supplied to 12,000,000.

- (a) Calculate price elasticity of supply when the price increases from \$900 to \$1,100 using the midpoint method. Tell me if this is elastic, inelastic, or unit elastic.
- (b) Suppose firms produce 1,000,000 more computers at any given price due to improved technology. As price increases from \$900 to \$1,100, is the price elasticity of supply now greater than, less than, or the same as it was in 4.A?