GRADE 12

REVENUE AND ELASTICITY

Elasticities can be divided into three broad categories: elastic, inelastic, and unitary.

An **elastic demand** is one in which the elasticity is greater than one, indicating a high responsiveness to changes in price.

Elasticities that are less than one indicate low responsiveness to price changes and correspond to **inelastic demand.**

Unitary elasticities indicate proportional responsiveness of either demand or supply, as summarized in the following table:

If . . .	Then . . .	And It Is Called . . .
% change in quantity > % change in price	$\frac{\text{\% change in quantity}}{\text{\% change in price)}} > 1$	Elastic
% change in quantity = % change in price	$\frac{\text{\% change in quantity}}{\text{\% change in price)}} = 1$	Unit Elastic
% change in quantity < % change in price	$\frac{\text{\% change in quantity}}{\text{\% change in price)}} < 1$	Inelastic

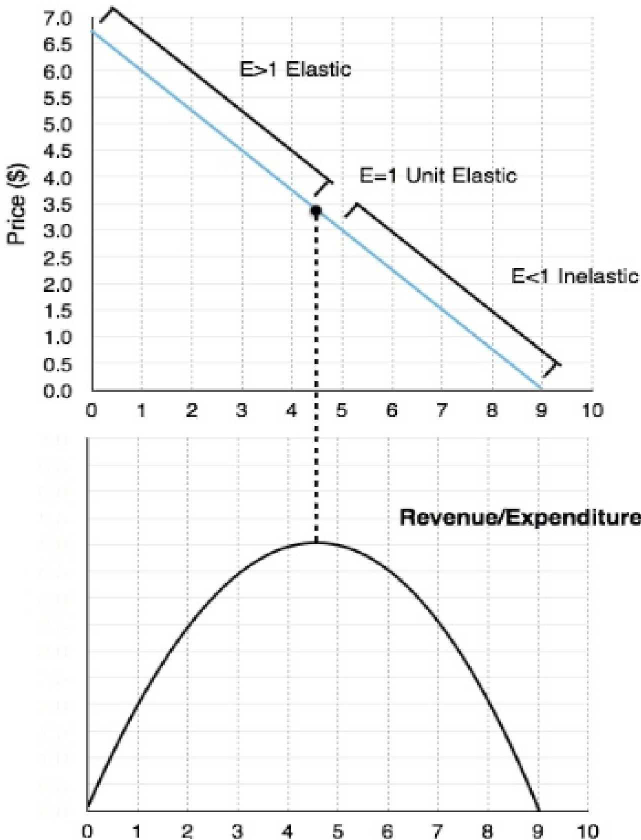
Elastic, Inelastic, and Unitary: Three Cases of Elasticity

The owner has two things to account for when deciding whether to raise the price, one that increases revenue and one that decreases it. Elasticity helps us determine which effect is greater.

1. When we increase price, we increase revenue on units sold **(The Price Effect).**
2. When we increase price, we sell fewer units **(The Quantity Effect).**

These two effects work against each-other. To determine which outweighs the other we can look at elasticity:
When our point is **elastic**
%change in quantity > %change in price
Meaning if we increase price, our quantity effect outweighs the price effect, causing a decrease in revenue.
When our point is **inelastic**
%change in quantity < % change in price
Meaning if we increase price, our price effect outweighs the quantity effect, causing an increase in revenue.

Graphically:



The first thing to note is that revenue is maximized at the point where elasticity is unit elastic. Why? If you are the coffee shop owner, you will notice that there are untapped opportunities when demand is elastic or inelastic.

If elastic: The quantity effect outweighs the price effect, meaning if we decrease prices, the revenue gained from the more units sold will outweigh the revenue lost from the decrease in price.

If inelastic: The price effect outweighs the quantity effect, meaning if we increase prices, the revenue gained from the higher price will outweigh the revenue lost from less units sold.

It can be summarized as:

	Increase in Price	Decrease in Price
Price Elastic	Revenue/Expenditure Falls	Revenue/Expenditure Rises
Price Inelastic	Revenue/Expenditure Rises	Revenue/Expenditure Falls