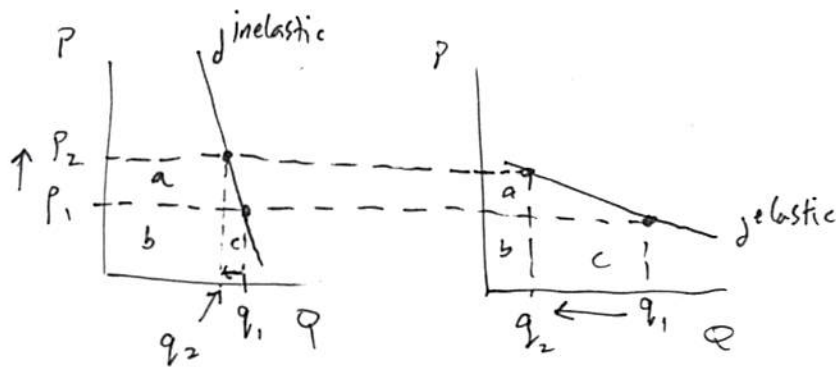


Additional notes on elasticity of demand ( $\epsilon_d$ )

- On zoom, I explained how TR is affected by  $\epsilon_d$ .



When  $P$  increases from  $P_1$  to  $P_2$ , TR changes from  $b+c$  to  $a+b$ . In the graph on the left, since  $a > c$ , TR increases when  $P \uparrow$ . On the graph to the right,  $a < c$ , so TR  $\downarrow$  when  $P \uparrow$ .

- I didn't explain the math-calculation of elasticity of demand. I won't ask you to make calculations. But I will ask you to know this:

$$\epsilon_d = \frac{\% \Delta Q_d}{\% \Delta P}$$

So if  $P$  cigarettes  $\uparrow$  by 20% and  $Q_d$  falls by only 5%,

$$\epsilon_d = \frac{5}{20}, \text{ which is } < 1.$$

When  $\epsilon_d < 1$  it's called "inelastic"

Demand

But if some good has really responsive consumers, like for Diet Pepsi, then maybe when  $P \downarrow$  by 10%,  $Q_d$  increases by 30%. Then  $\epsilon_d = \frac{30}{10}$ , which is  $> 1$ , so that's "elastic" or a flat  $\downarrow$  curve.

See p. 93 of the book for more on this. But don't worry about doing calculations more complicated than: is it  $>$  or  $<$  1.