



Marginal Analysis, Substitution, and Elasticity

Antitrust
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Marginal Analysis

- Consumers and producers make decisions on the margins.
- “Marginal” can be read as “additional.”



Pentel Graph Gear 1000
0.9mm mechanical
drafting pencil

Marginal Analysis

- Consumers and producers make decisions on the margins.
- “Marginal” can be read as “additional.”
- How many mechanical pencils should I buy at \$10 each? I do the marginal analysis:

Marginal Analysis

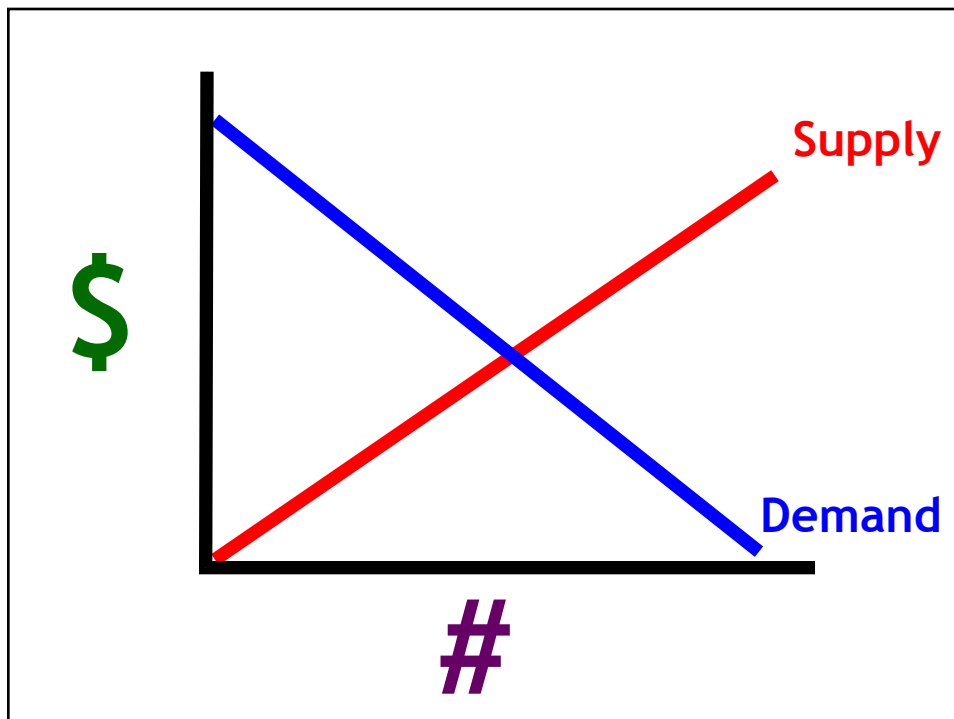
- Consumers and producers make decisions on the margins.
- “Marginal” can be read as “additional.”
- How many mechanical pencils should I buy at \$10 each? I do the marginal analysis:
 - One makes me really happy. Totally worth it.
 - A second one is good. I can keep one in my desk, one in my backpack. Worth it.
 - A third one isn't super helpful except as a spare. But if one gets lost, I'll appreciate having the extra on hand, so \$10 seems worth it to me.
 - A fourth one? It's unlikely that would be useful to me. For \$10, it's not worth it.

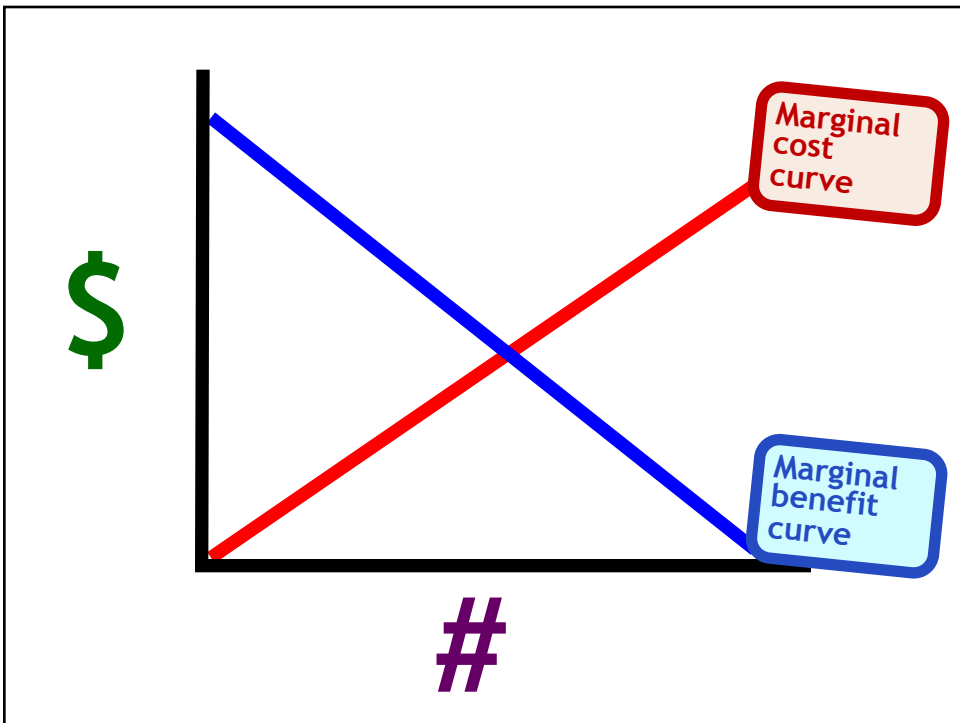
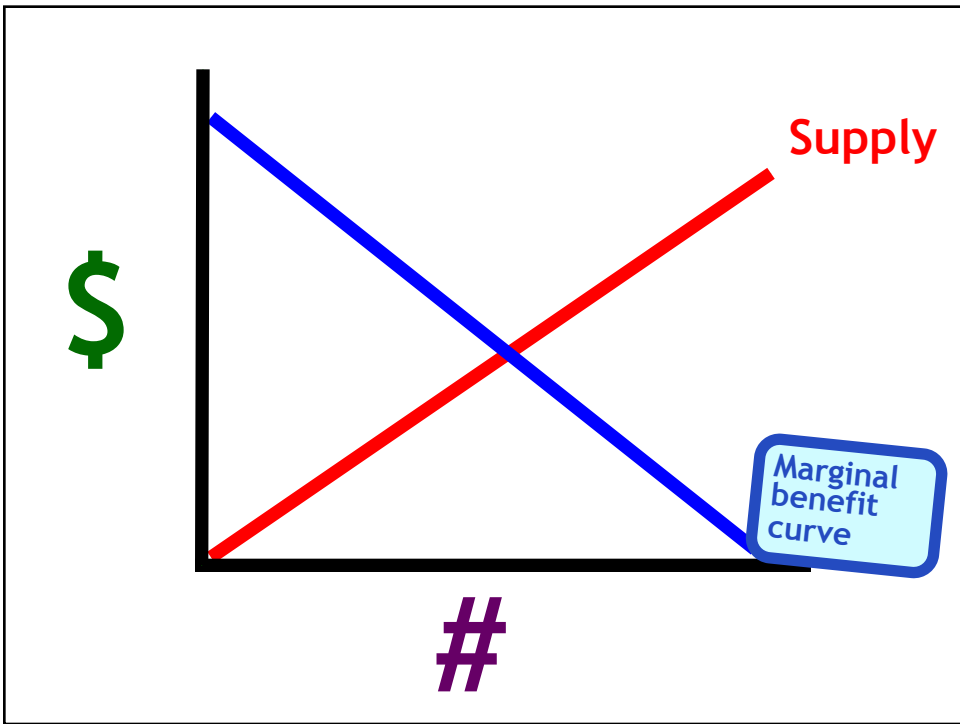
Marginal Analysis

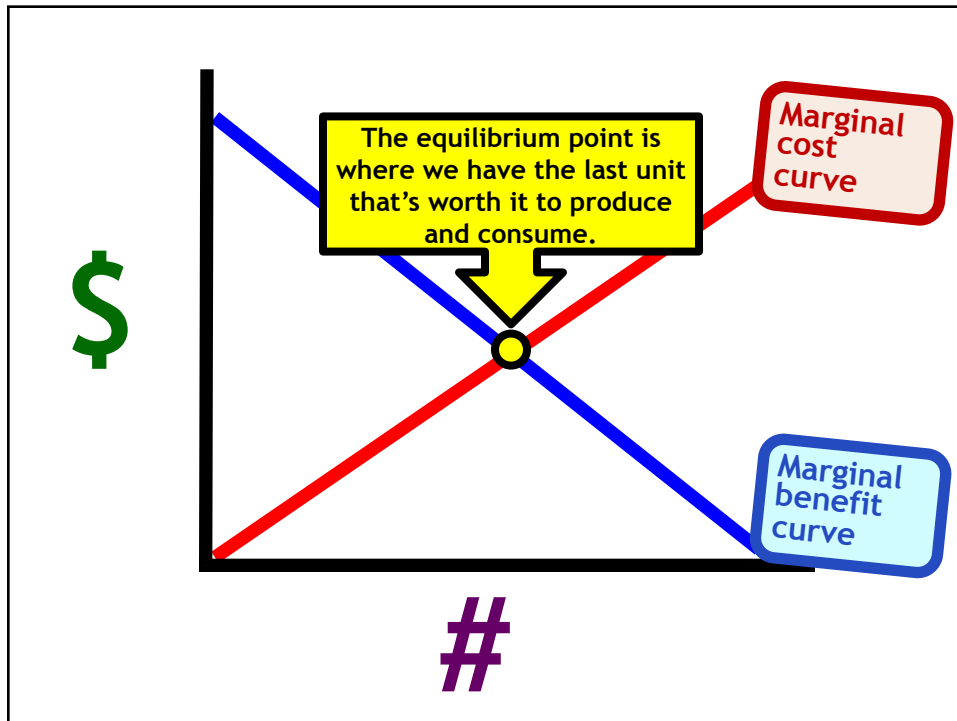
- With marginal analysis, you're asking, “Is it worth it for me to buy or produce one more unit?”
- The idea is that all economic actors make decisions this way.

Utility and Marginal Analysis

- Economists classically assume that people are always making decisions to maximize their personal utility.
- “Utility” can be read as “satisfaction.”
- The Law of Diminishing Marginal Utility says *ceteris paribus*, marginal utility decreases as consumption increases.
 - “*Ceteris paribus*” means “all else being equal.”
 - “Law of Diminishing Marginal Utility” can be read as the “Law of Decreasing Additional Satisfaction.”
 - It means, each additional unit you (or society) consumes is less satisfying than the last.
- This is why demand curves slope down.







Elasticity

- Elasticity can be read as “responsiveness” or “sensitivity” to change.
- If it’s “relatively elastic,” then it’s pretty responsive.
- If it’s “relatively inelastic,” then it’s pretty unresponsive.
- **Price elasticity of demand** is how responsive demand is to changes in price.

Substitution Effect

- The more prices go up, the more consumers will tend to avoid those goods by purchasing substitutes.
- The closer the substitutes, the greater the tendency for prices to make people jump ship and buy the substitutes instead.

Tending toward elasticity

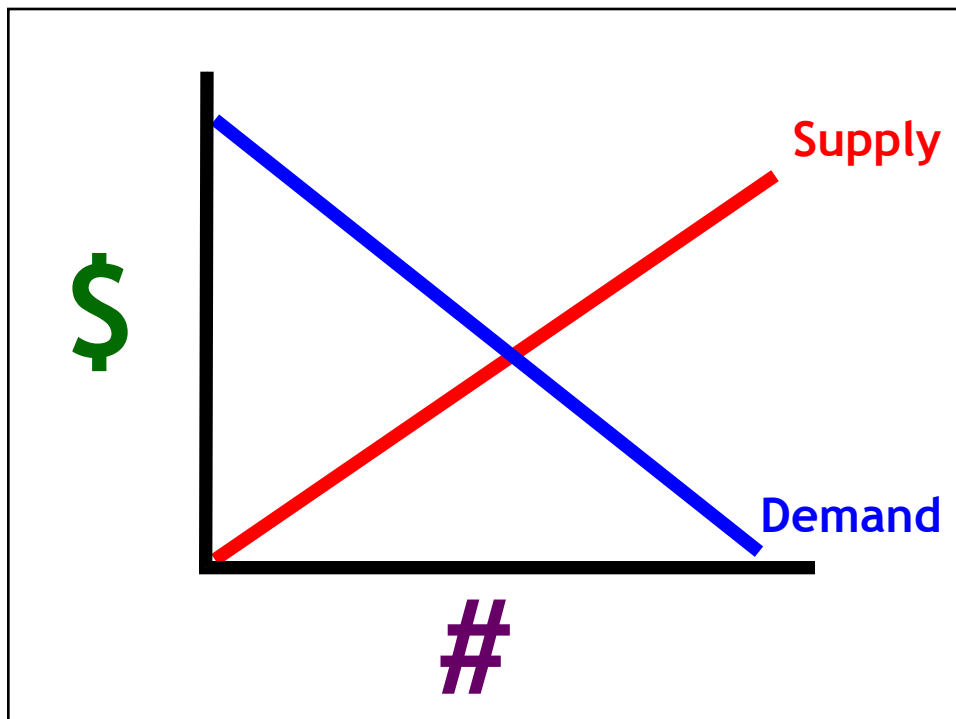
- The goods are luxuries.
- Close substitutes exist.
- The time horizon is long.

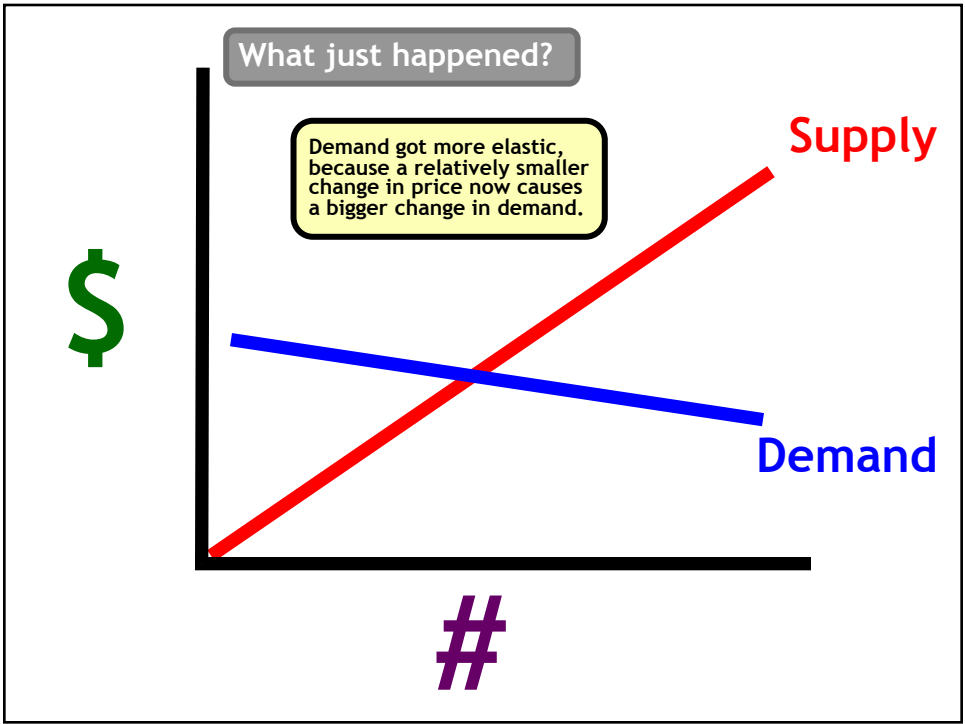
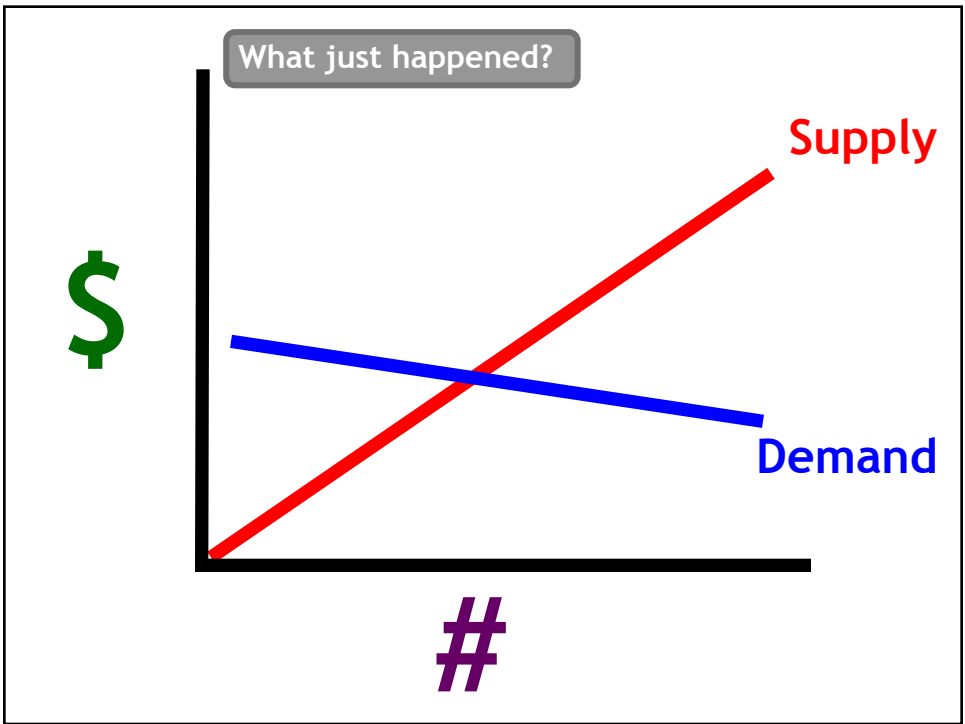
Tending toward inelasticity

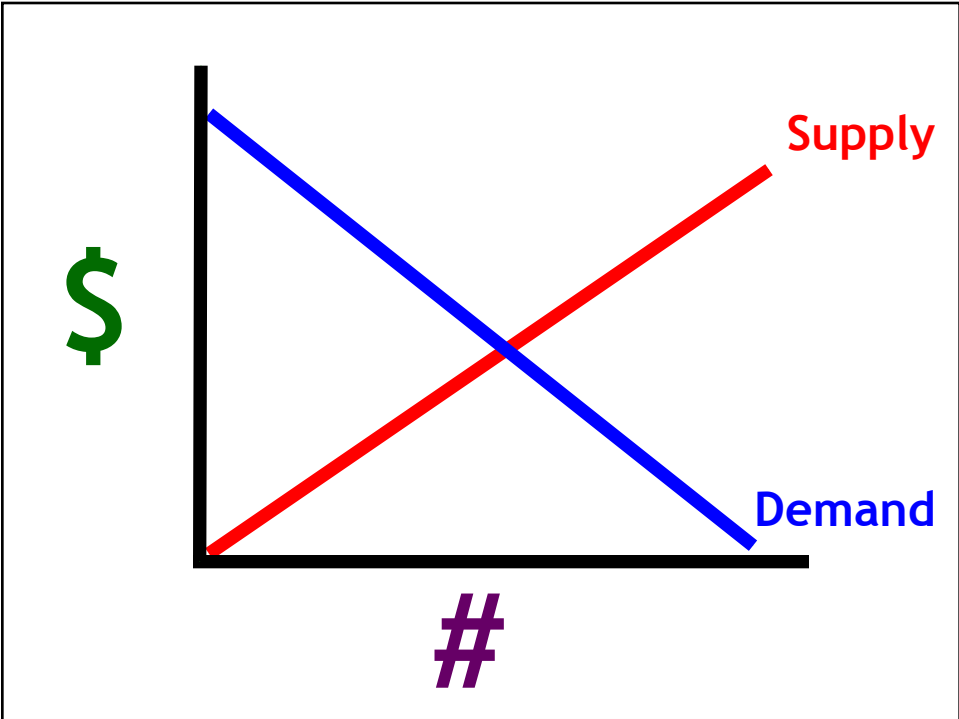
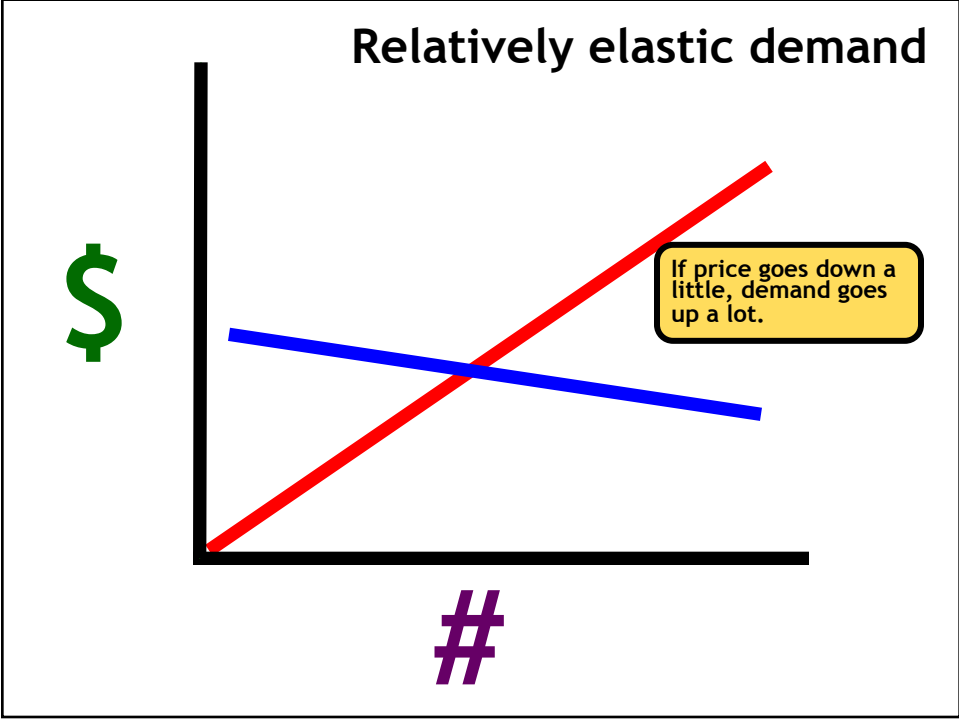
- The goods are necessities.
- Nothing's easily substitutable.
- The time horizon is short.

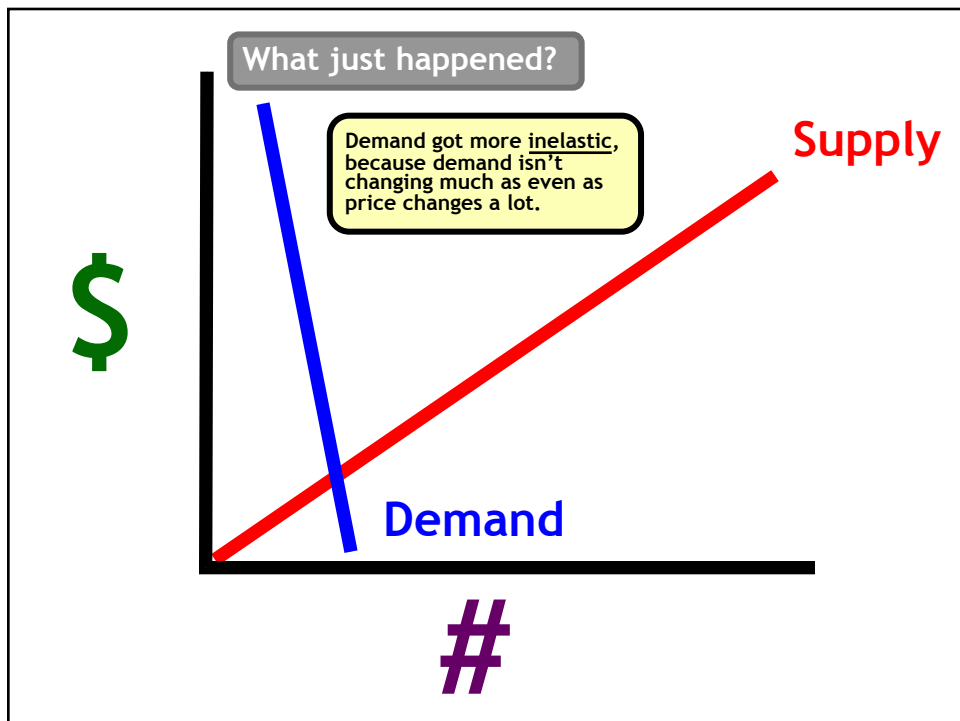
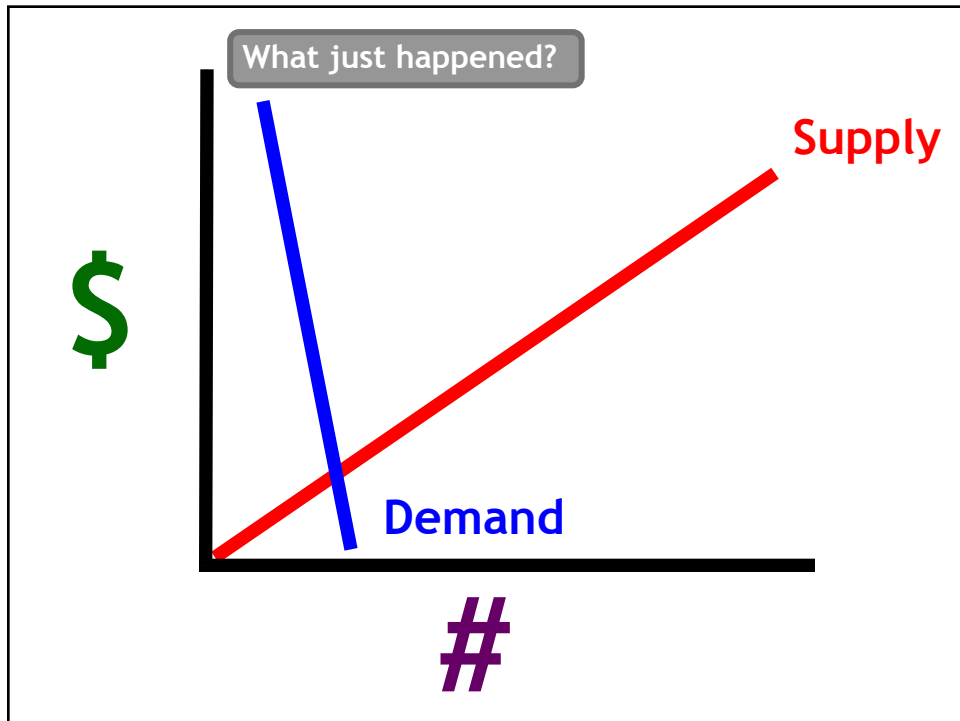
Price Elasticity of Demand

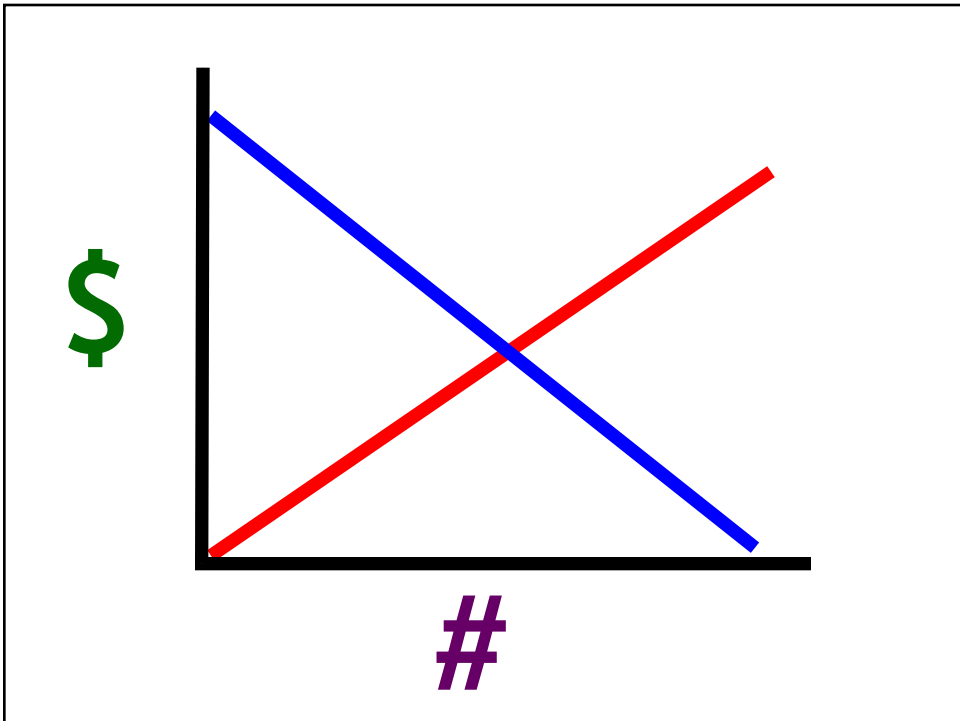
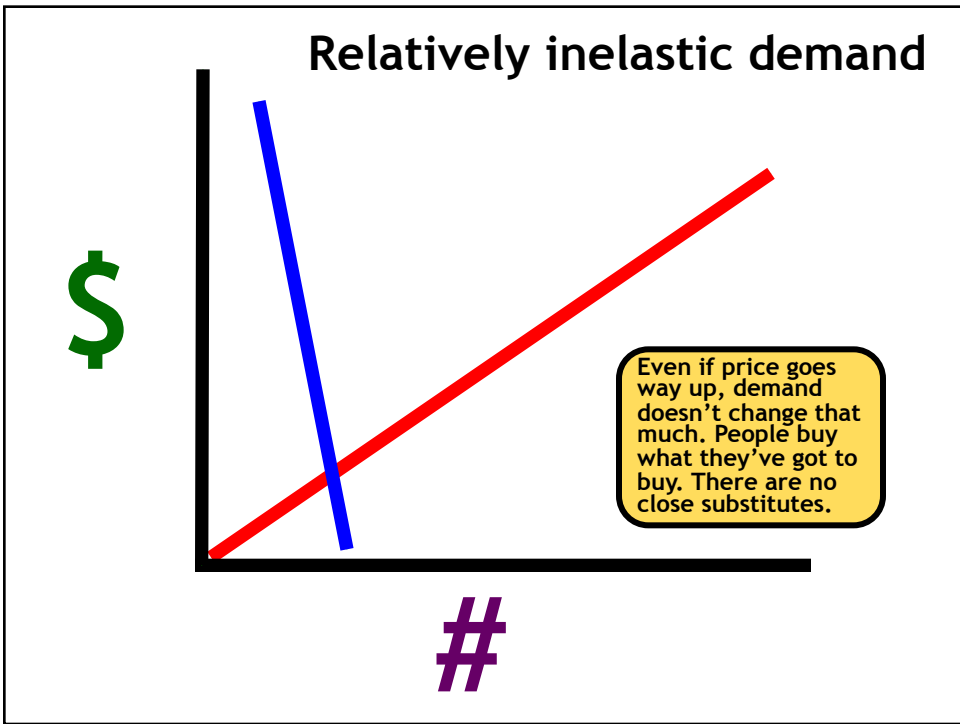
- **Price elasticity of demand** is how responsive demand is to changes in price, so ...
- If consumers will buy almost as much when the price goes up, that means demand doesn't change much with price, which is a situation where price elasticity of demand is relatively inelastic.
 - Examples: gasoline, insulin
- If consumers will rapidly cut how much they buy when the price goes up, that means demand changes a lot with price, which is a situation where price elasticity of demand is relatively elastic.
 - Examples: particular kinds of food

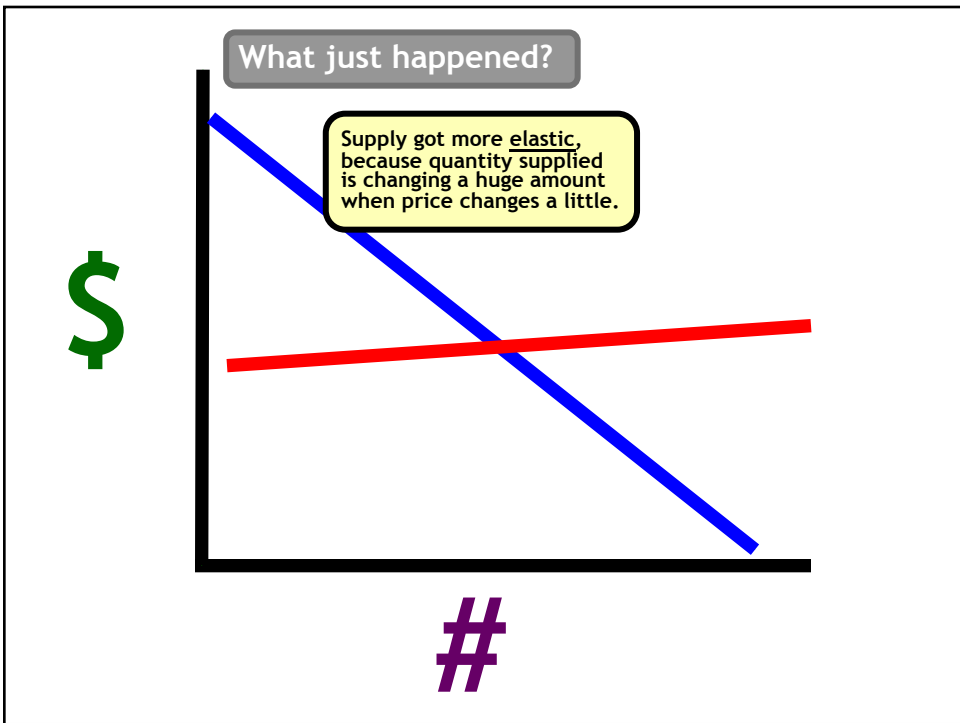
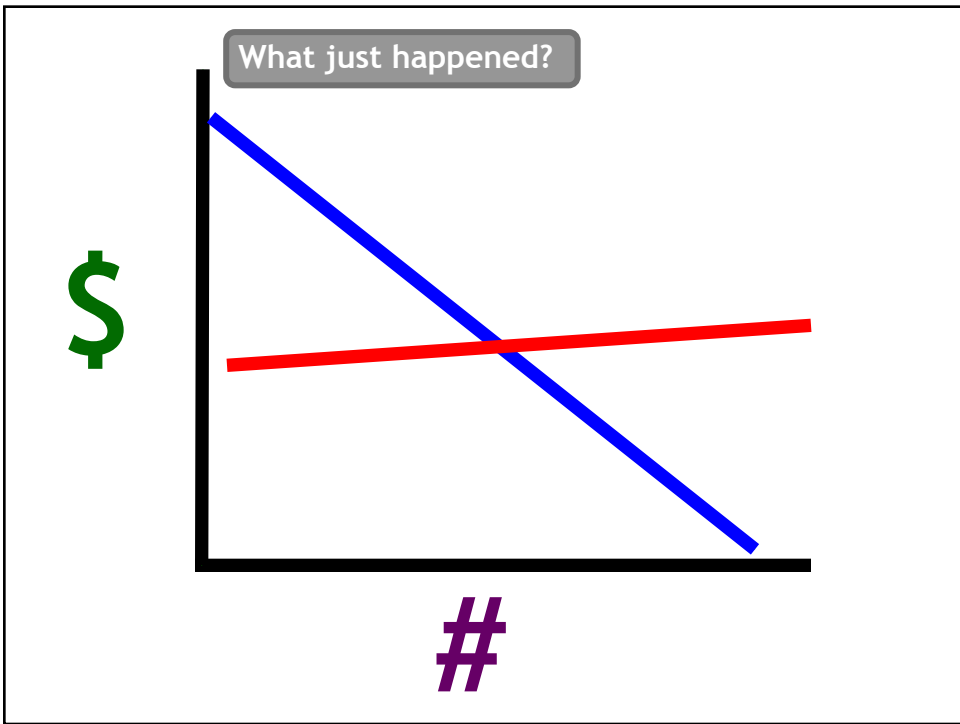


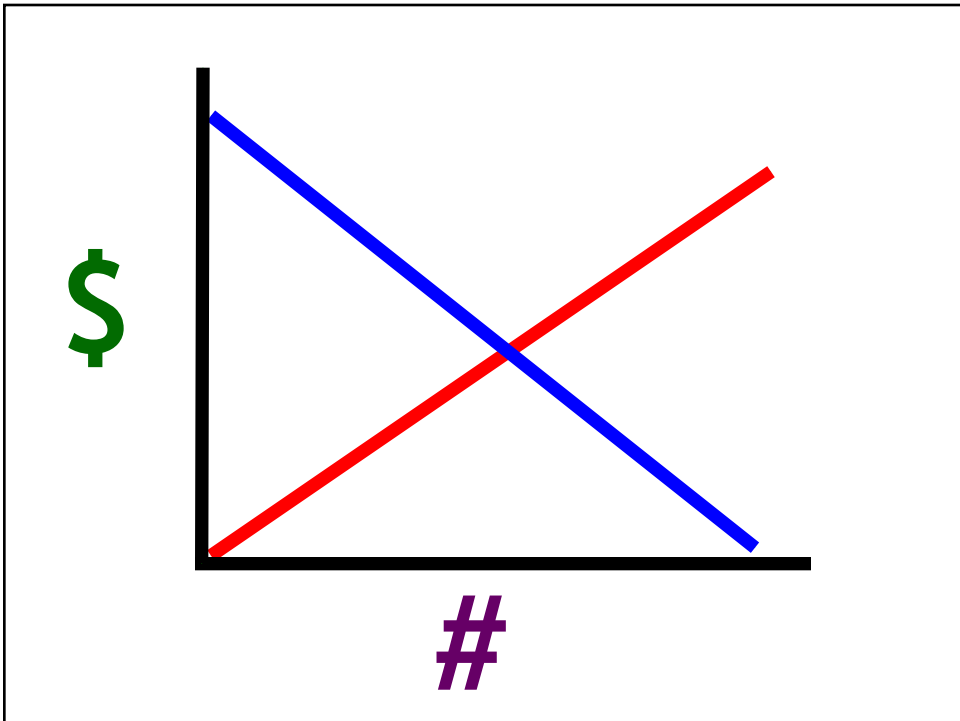
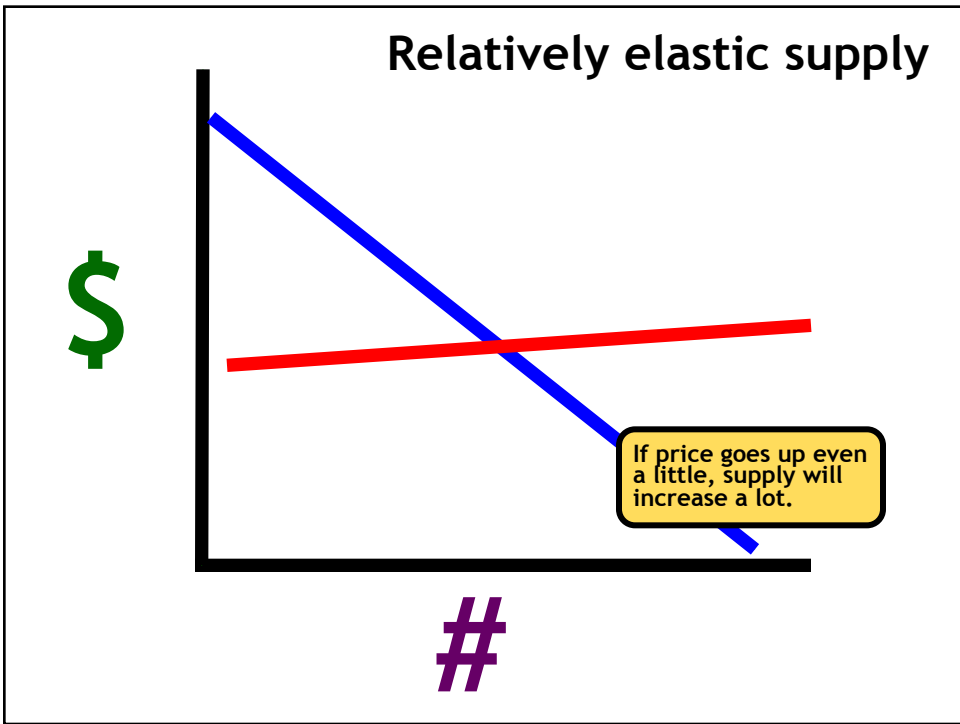


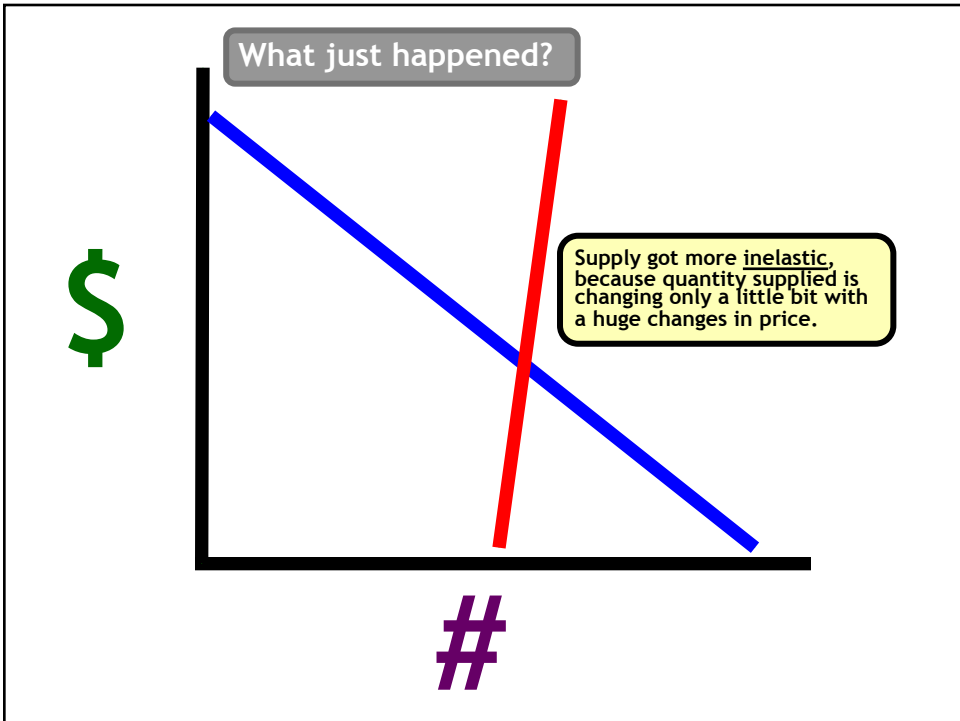
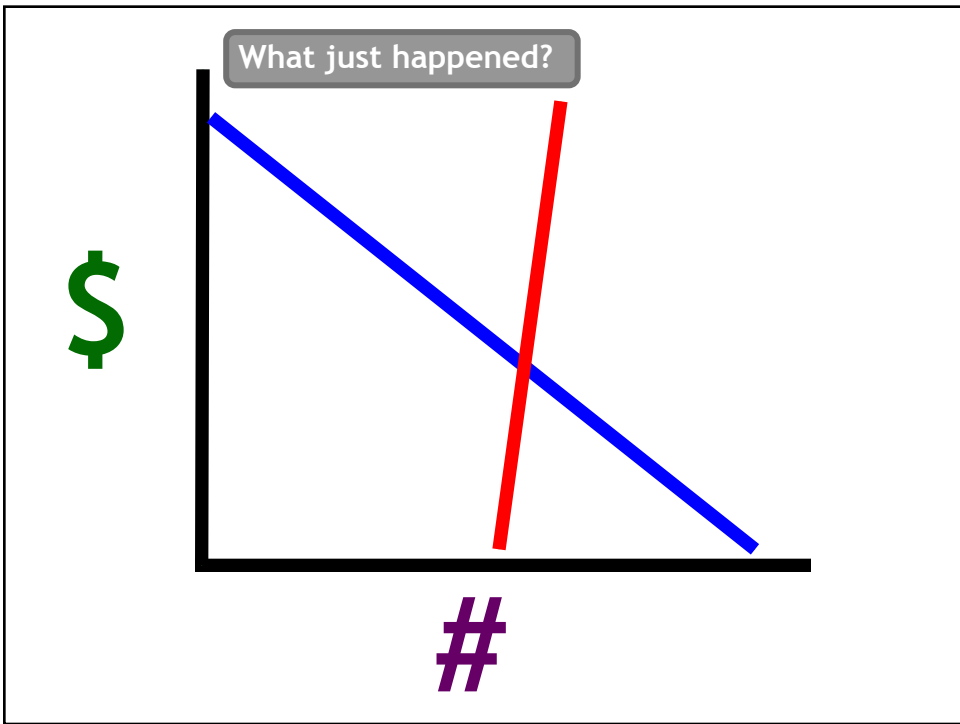


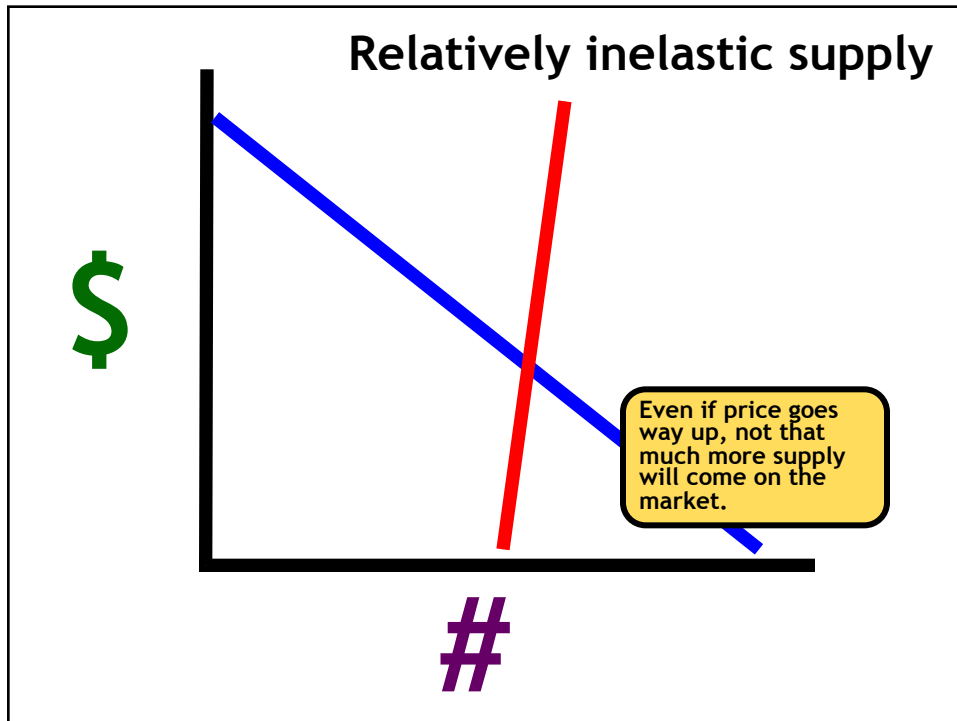








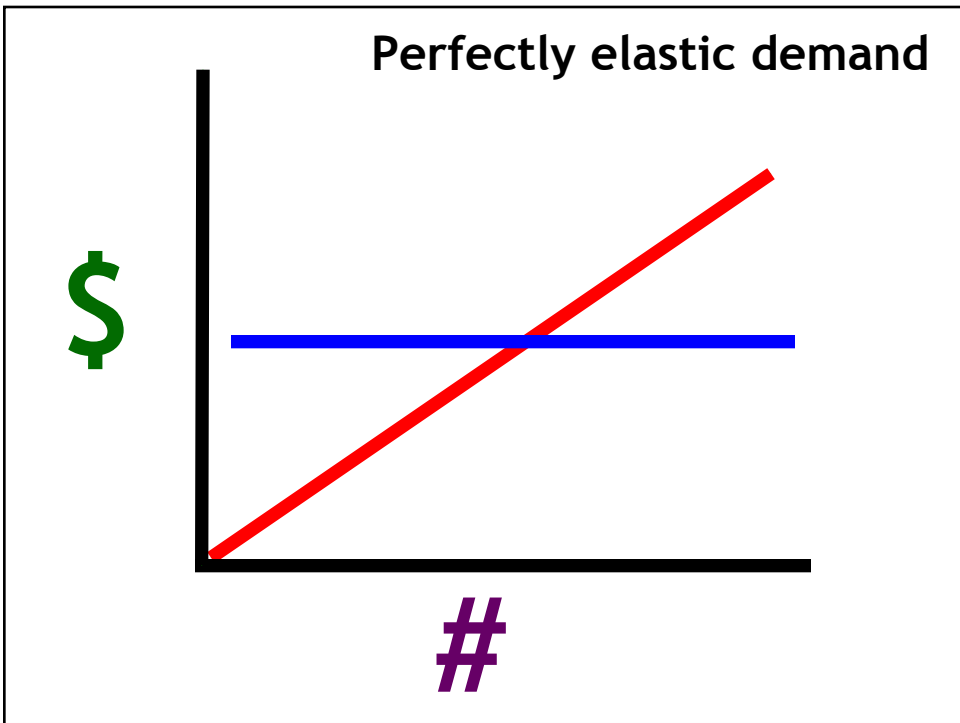
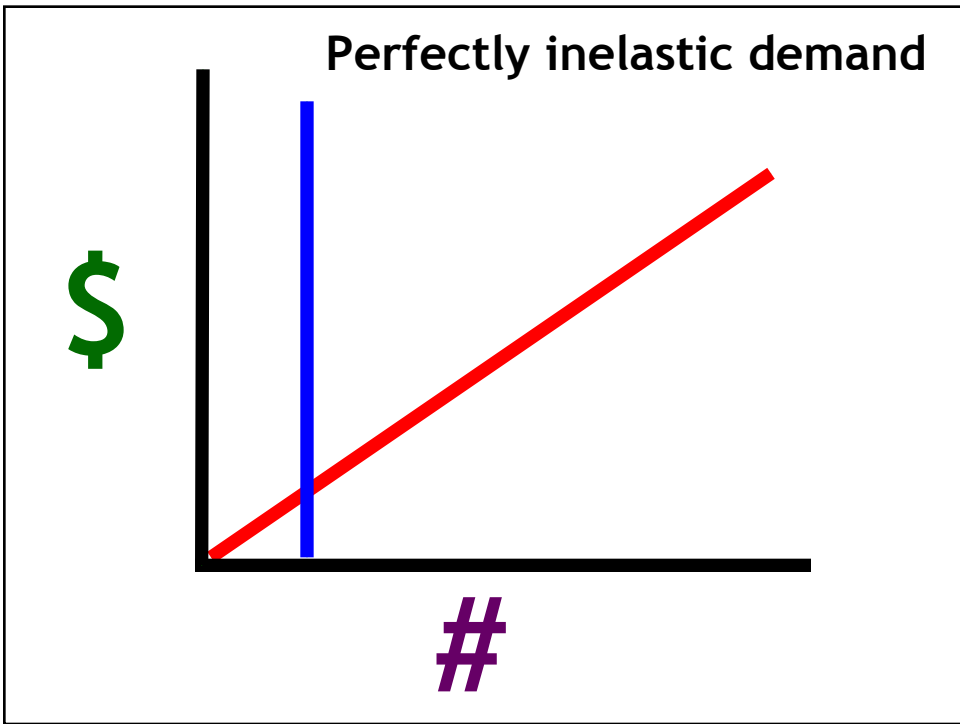


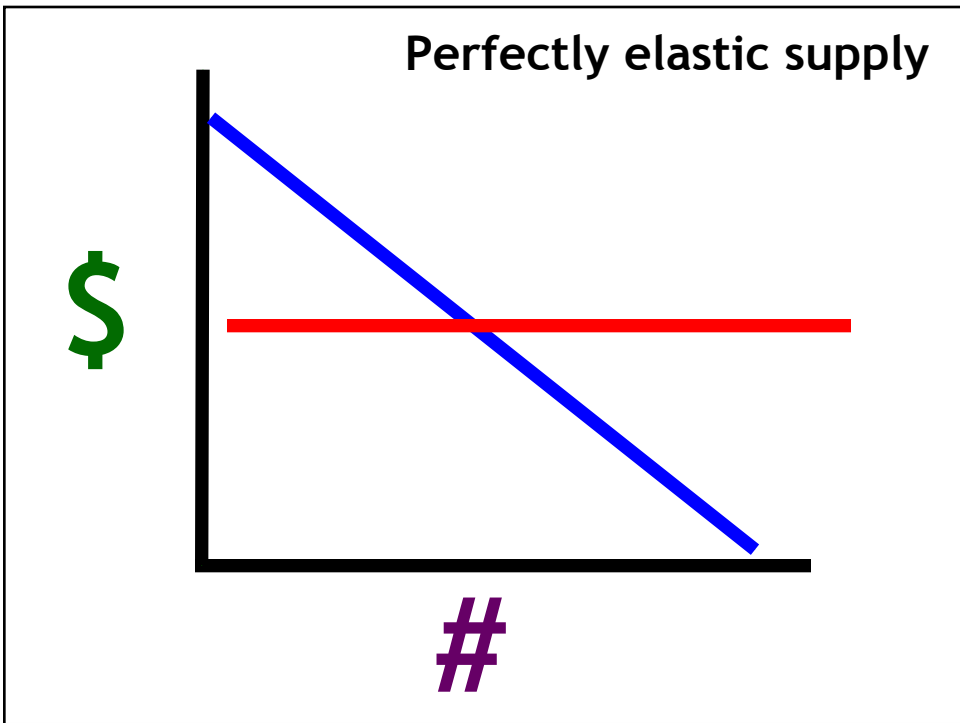
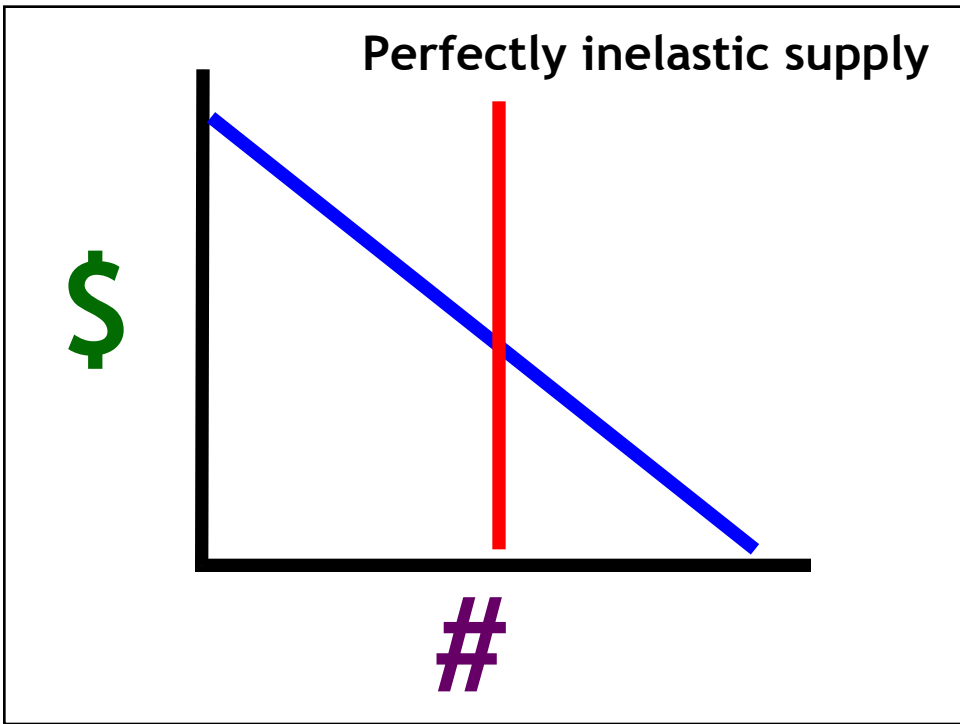


Extreme cases of elasticity

Perfectly **I**nelastic is vertical, like the letter “I”

Perfectly **E**lastic is horizontal,
like the cross bars of the “E”





Extreme cases of elasticity

Recall ...

Perfectly **I**nelastic is vertical, like the letter “I”

Perfectly **E**lastic is horizontal,
like the cross bars of the “E”

Substitution Effect

Recall ...

- The more prices go up, the more consumers will tend to avoid those goods by purchasing substitutes.
- The closer the substitutes, the greater the tendency for prices to make people jump ship and buy the substitutes instead.

Recall ...

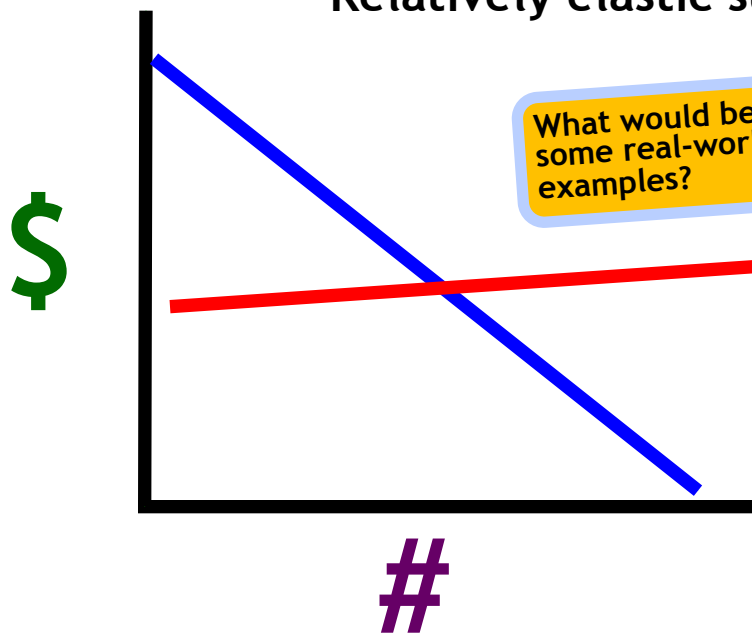
Tending toward elasticity

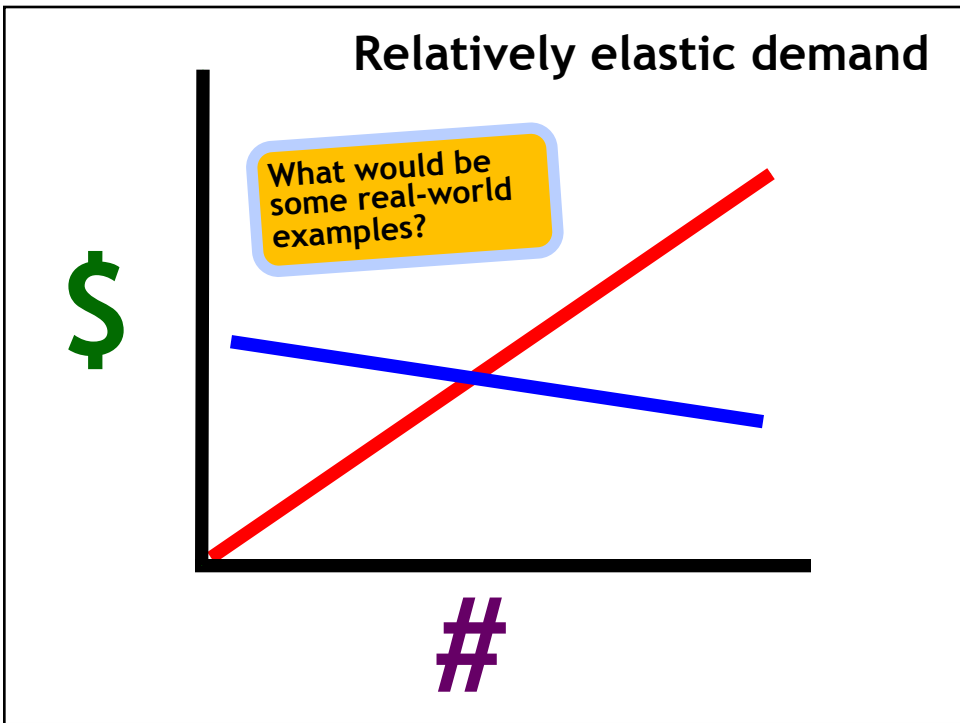
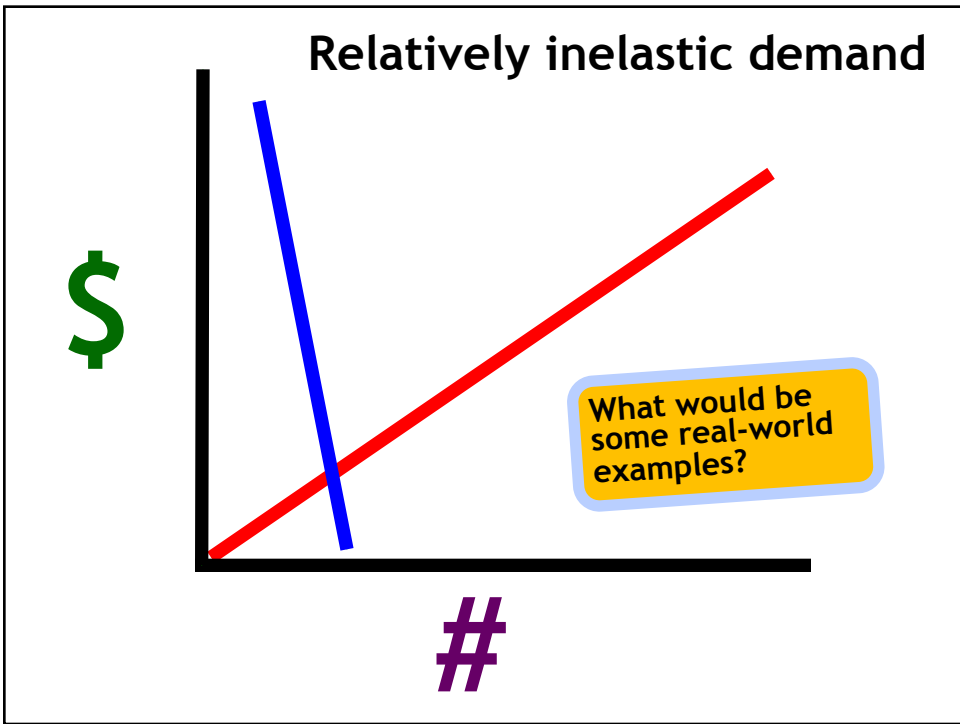
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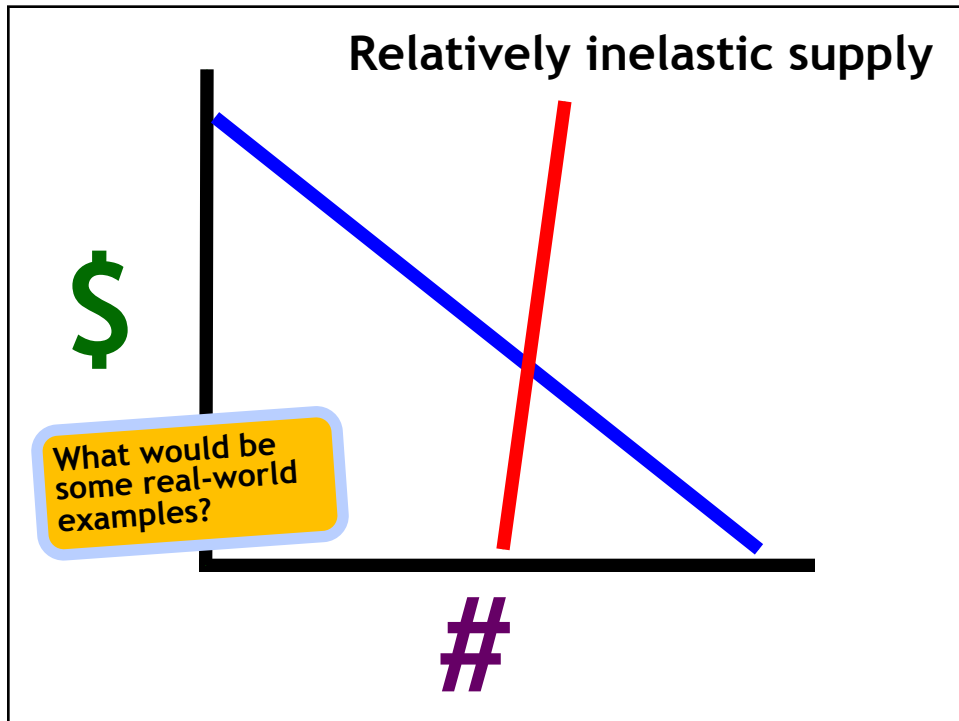
Tending toward inelasticity

- The goods are necessities.
- Nothing's easily substitutable.
- The time horizon is short.

Relatively elastic supply







Tending toward elasticity	Tending toward inelasticity
<ul style="list-style-type: none"> • The goods are luxuries. • Close substitutes exist. • The time horizon is long. 	<div style="text-align: right; font-size: 0.8em; color: green; border: 1px solid black; padding: 2px; display: inline-block;">Recall ...</div> <ul style="list-style-type: none"> • The goods are necessities. • Nothing's easily substitutable. • The time horizon is short.

Substitution Effect

Recall ...

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**Now here comes a
super important
concept for
antitrust law ...**

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concept for
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cross-price elasticity
of demand**

Cross-Price Elasticity of Demand

- Cross-price elasticity of demand brings into consideration two different goods.
- Cross-price elasticity of demand is how responsive demand for one good is to changes in the price of another good.
- If the price of blueberries goes way up, then probably the demand for strawberries will increase.

Consider a town with two gas stations:

- If the price of Shell gasoline goes way up, then the demand for Sinclair gasoline is going to go way up.