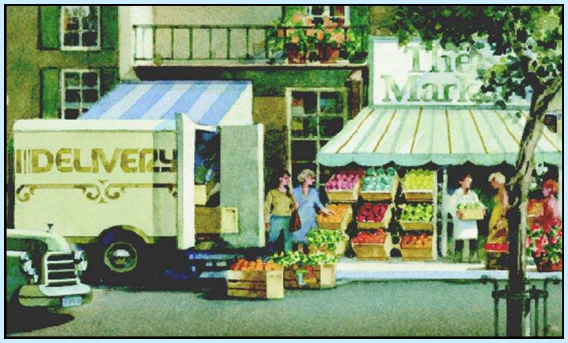
ECONOMICS

UNIT 3

Lesson III :
Prices and elasticity



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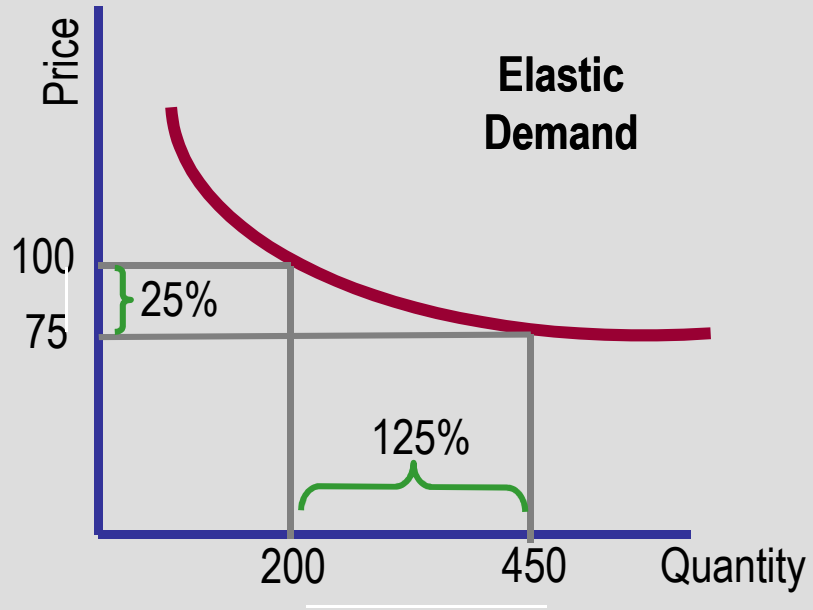
Price-Elasticity of Demand

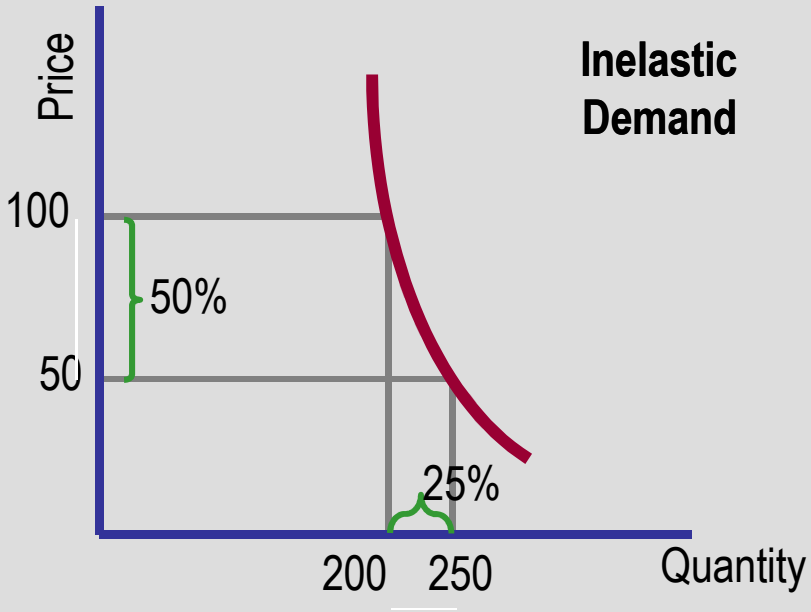


The demand represented in this graph
is VERY RESPONSIVE to price changes.
When price is $100, quantity demanded is 200 units.

a LITTLE DECREASE IN PRICE, from $100 to $75, will cause
a BIG INCREASE IN QUANTITY DEMANDED, from 200 to 450 units.

Decrease in price is 25%
and it has caused an increase in demand greater than 100%

In these cases we say **DEMAND IS PRICE-ELASTIC.**



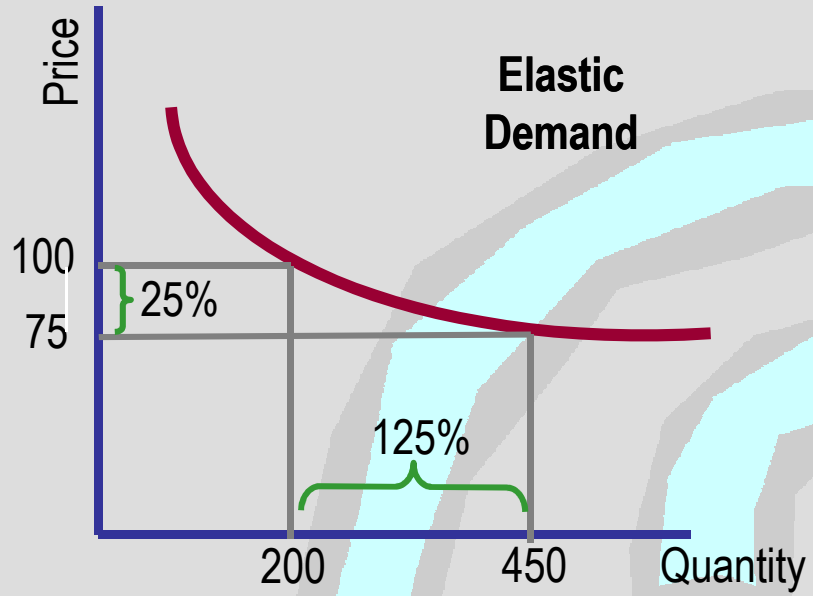
The demand represented in this graph
is NOT VERY RESPONSIVE to changes in price.
When price is $100, quantity demanded is 200 units.

a BIG DECREASE IN PRICE, from $100 to $50, will cause
a LITTLE INCREASE IN QUANTITY DEMANDED, from 200 to 250 units.

Price decrease is 50% but

it has caused only a 25% increase in quantity demanded.

In these cases, we say **DEMAND IS PRICE-INELASTIC.**



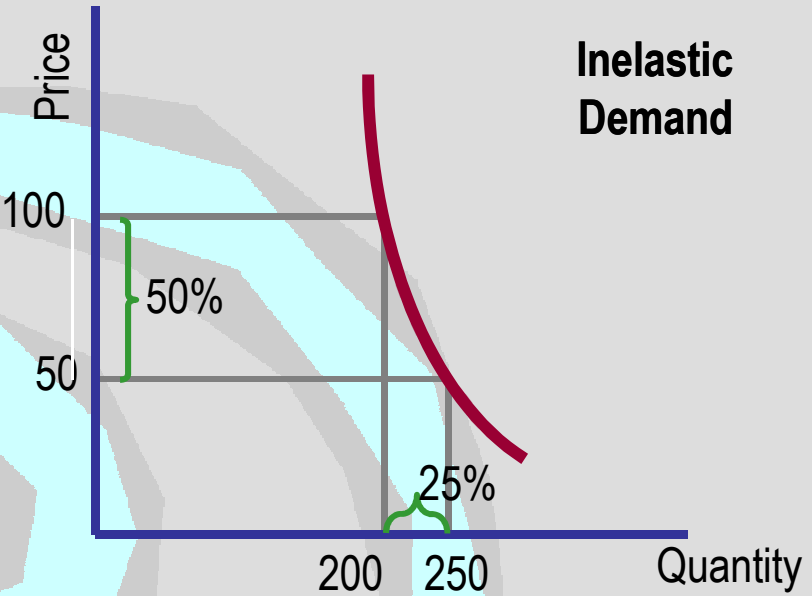
QUESTIONS:

What is the elasticity of this demand curve?

Explain its meaning.

Is it a good idea to lower the price? Why?

Is it a good idea to raise the price? Why?



QUESTIONS:

What is the elasticity of this demand curve?

Explain its meaning.

Is it a good idea to lower the price? Why?

Is it a good idea to raise the price? Why?

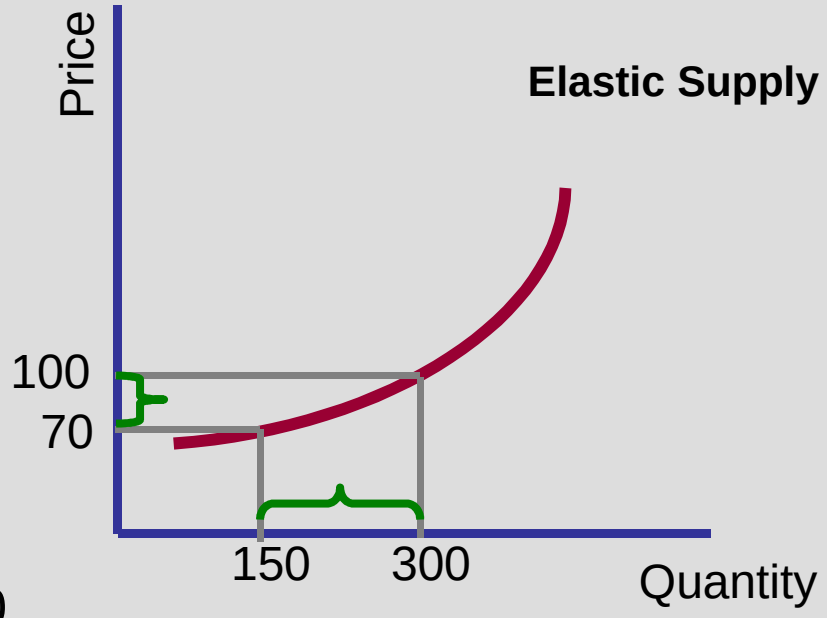
Price-Elasticity of Supply

The Supply represented
in this graph
is VERY RESPONSIVE to
changes in price.

When price is $100, quantity supplied is 300 units.

A little decrease in price, from $100 to $70, will cause a big decrease in the quantity supplied, from 300 to 150 units.

Price decrease is 30%
but it has caused a 50% decrease
in quantity supplied



In these cases, we say **SUPPLY IS PRICE-ELASTIC**

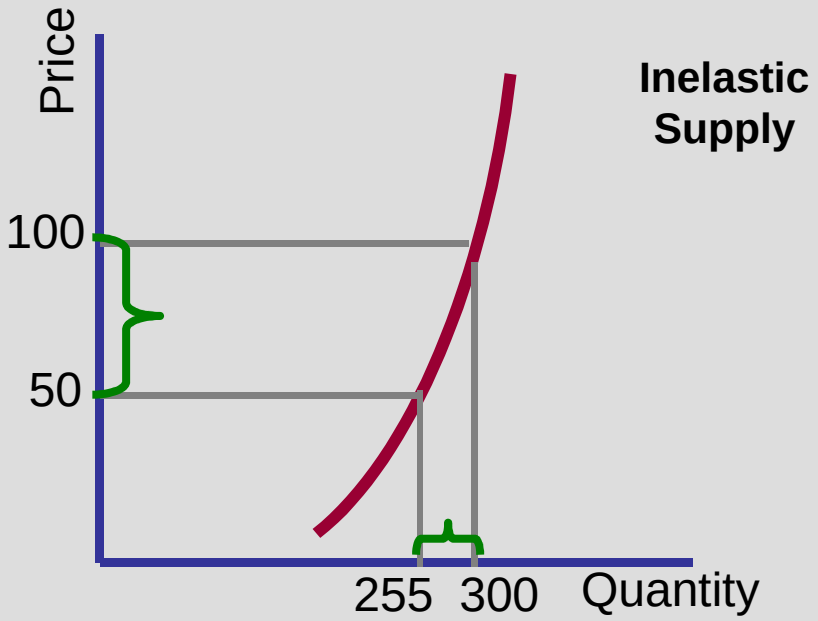
On the contrary, the supply represented in this graph is NOT VERY RESPONSIVE to changes in price.

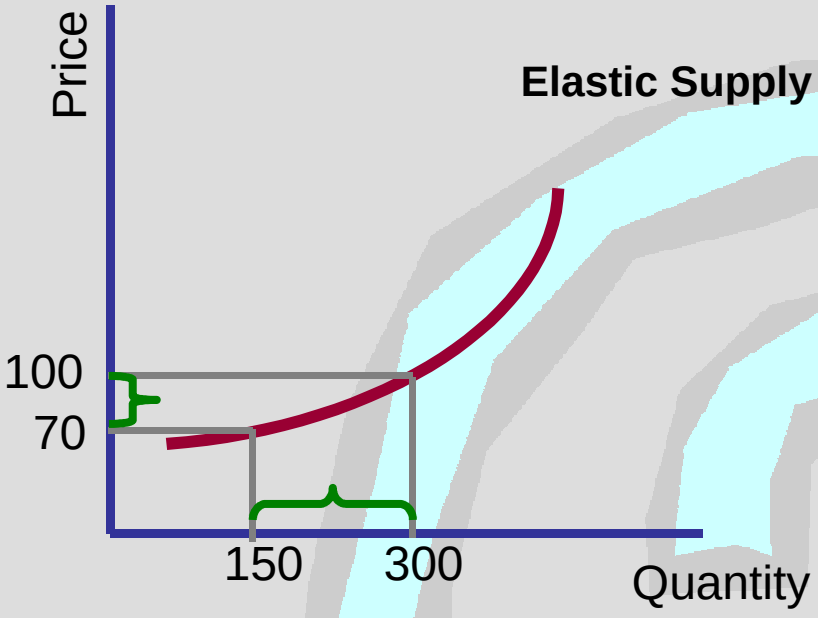
When price is $100, quantity supplied is 300 units.

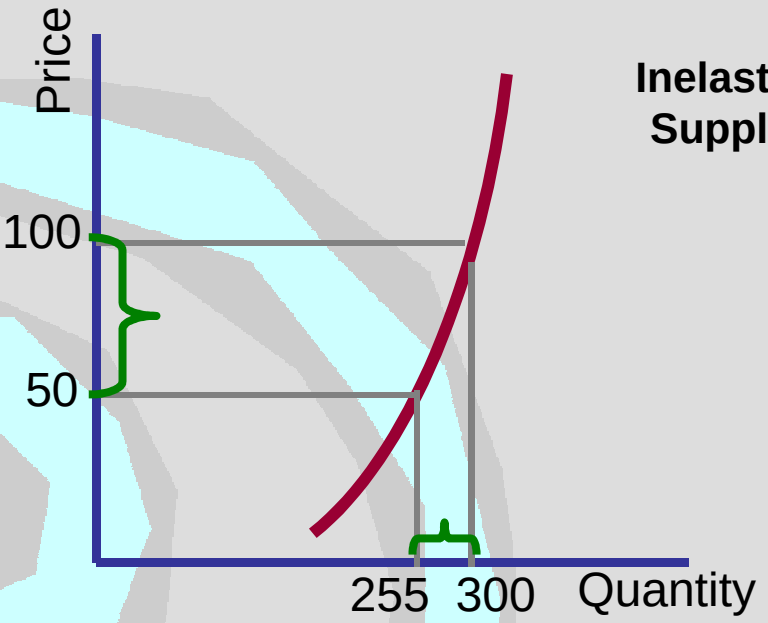
A big decrease in price, from $100 to $50, will cause a little decrease in quantity supplied, from 300 to 255 units.

Price decrease is 50%
but it has caused a little decrease in quantity supplied. A 15% decrease, to be exact.

In these cases, we say **SUPPLY IS PRICE-INELASTIC.**







QUESTIONS:

What is the elasticity of this supply curve?
Explain its meaning.

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Explain its meaning.

The Theater Enigma

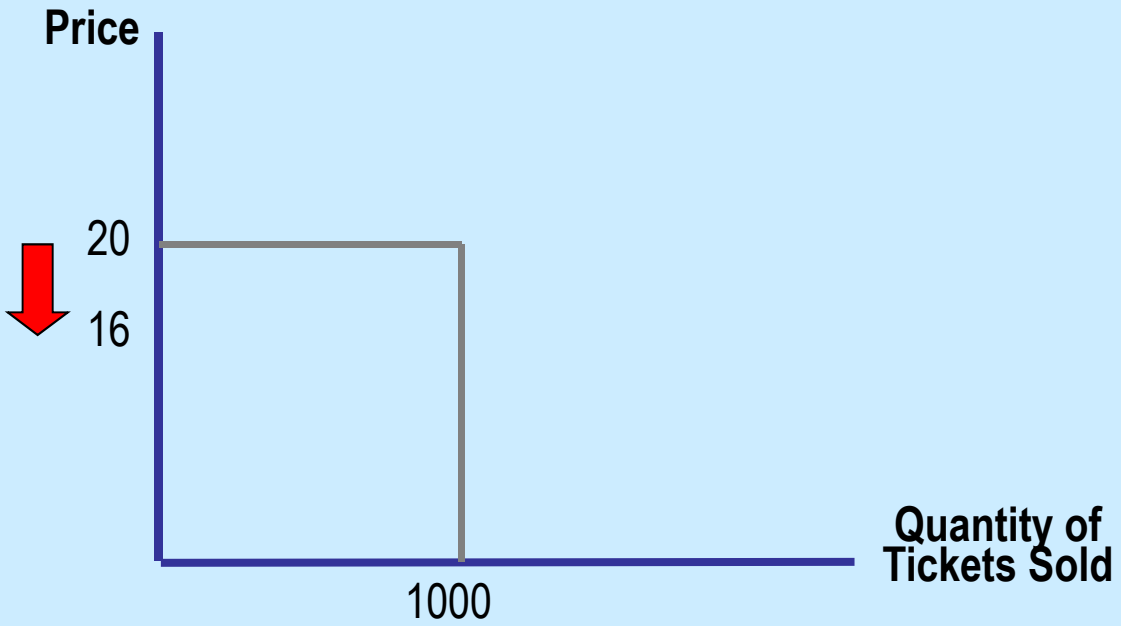
LET'S IMAGINE YOU'RE THE MANAGER OF A THEATER...

Ticket price is $20. At $20 we usually sell about 1,000 tickets.

But the theater has a capacity of 2,000 people. Therefore, it's always half empty!!!

Then a smart student tells you to set ticket prices at $16 because she states that, if the price decreases, quantity demanded will increase. Thus, we'll be able to sell more tickets and increase our revenues...

QUESTION: Do you agree with the student? Do you think her idea is going to work? Will we be able to fill the theater and earn more money?



1st Question: What is our Total Revenue at the initial situation?

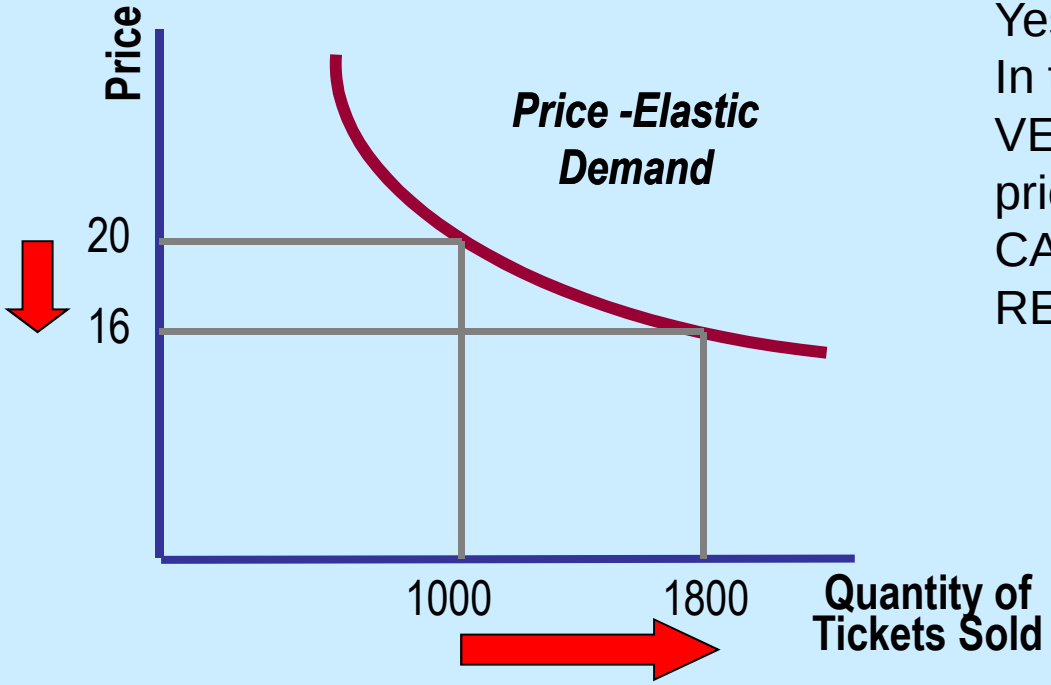
$$TR = P \cdot Q = 20 \cdot 1000 = \$20{,}000$$

Now take a look at the demand curve for tickets...

If we set the price at $16, we'll be able to sell many more tickets; 1,800 tickets to be exact.

2nd Question: What is our Total Revenue now? Was the student right?

$$TR = P \cdot Q = 16 \cdot 1800 = \$28{,}800$$



Yes indeed, the student was right. In this case, quantity demanded is VERY RESPONSIVE to changes in price. PRICE REDUCTION HAS CAUSED AN INCREASE IN TOTAL REVENUE.

Then we say Demand is PRICE-ELASTIC

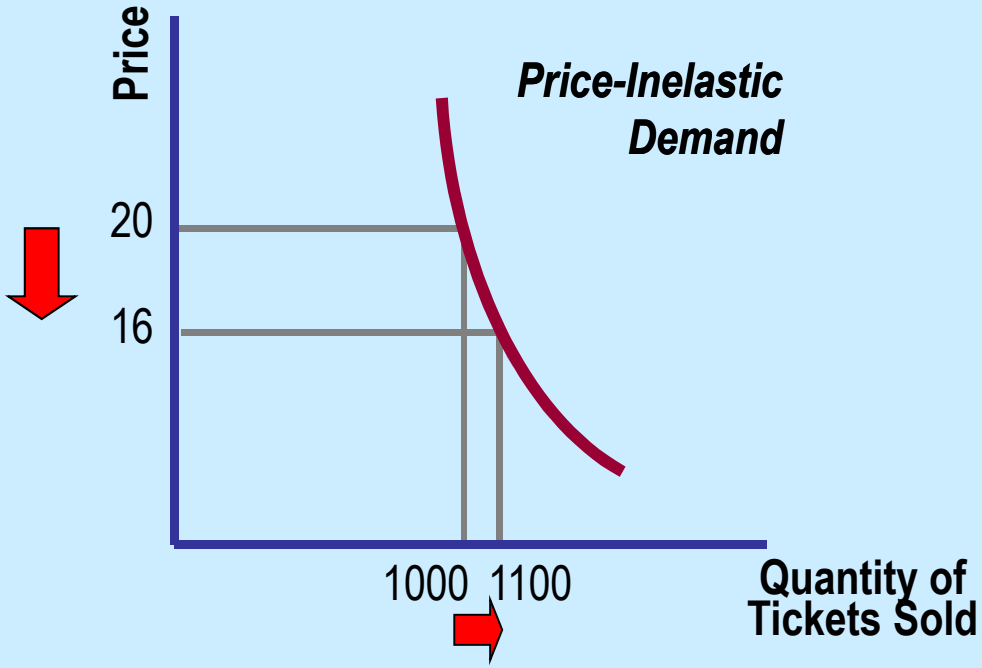
But things might have been very different…

The demand curve might have looked like this one...

In that case, if we set the price at $16, we can only sell a few more tickets, selling a total quantity of 1,100 to be exact.

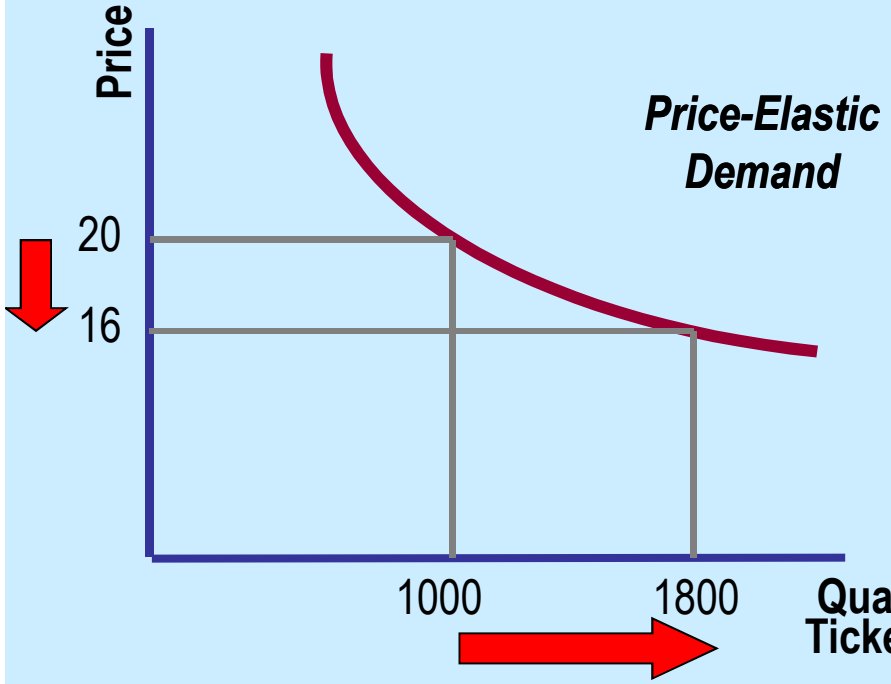
4th Question: What is our Total Revenue now? Was the student right?

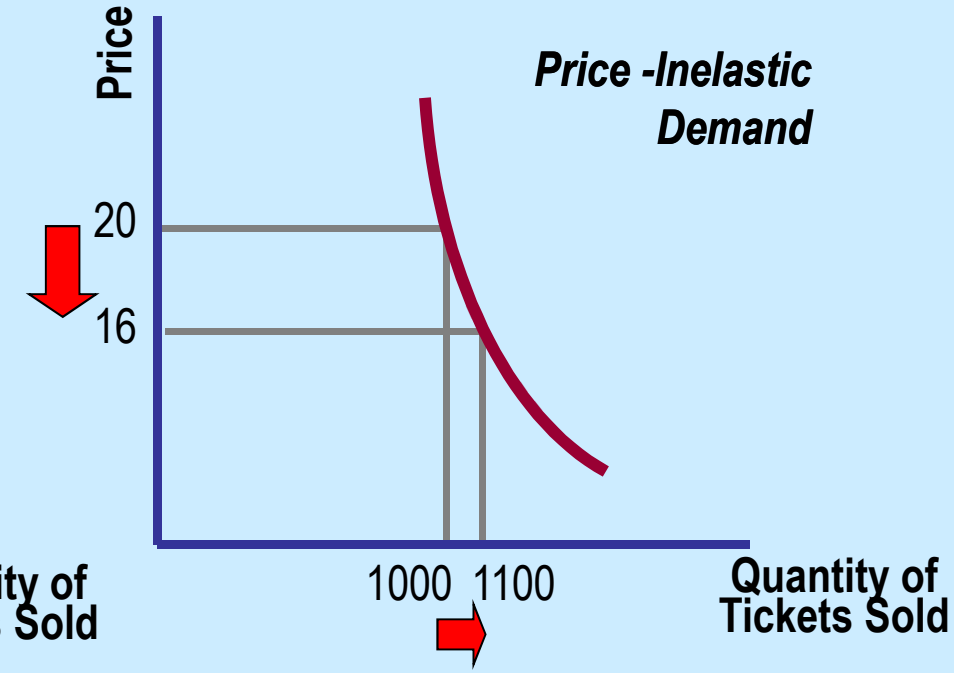
$TR = P \cdot Q = 16 \cdot 1100 = \$17{,}600$



Our beloved student wasn't right because... in this case, quantity demanded DOES NOT RESPOND STRONGLY to changes in price. PRICE REDUCTION HAS CAUSED A DECREASE IN TOTAL REVENUE

Then we say Demand is PRICE-INELASTIC





Price Elasticity of Demand measures the responsiveness of quantity demanded to changes in price. It is calculated according to the following formula:

$$\varepsilon = \frac{\%\text{ change in quantity}}{\%\text{ change in price}}$$

- When ε >1, demand is Price-Elastic
- When ε <1, demand is Price-Inelastic