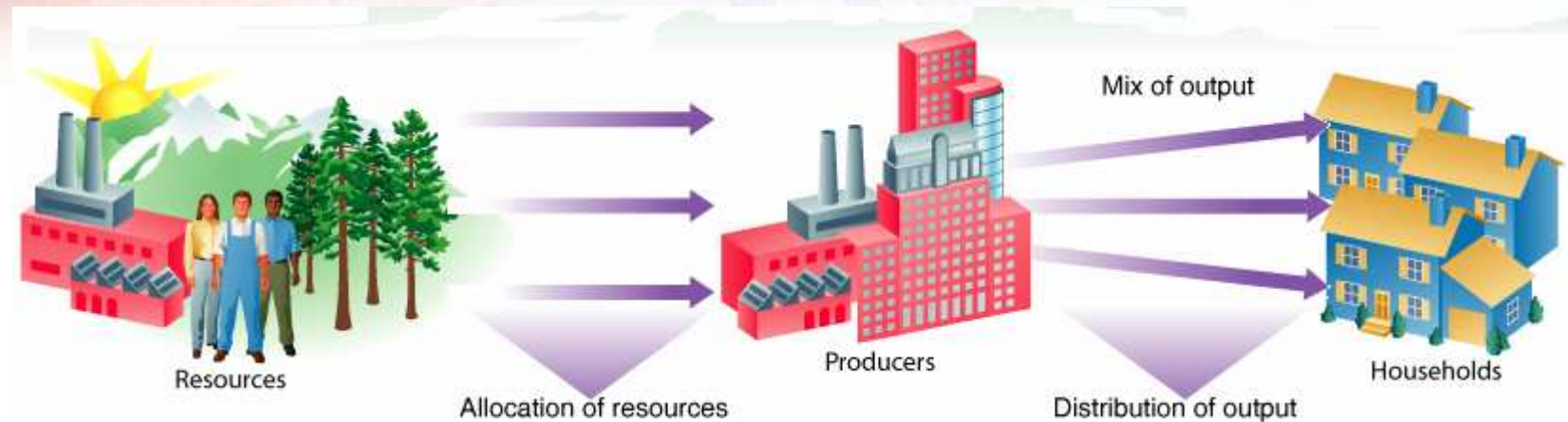




Scarcity, Choice and Economic Systems
Ing. Mansoor Maitah Ph.D. et Ph.D.

The Core Issues



Three core issues must be resolved

- What to produce?
- How to produce?
- For whom to produce?

We also have to decide who should answer these questions



The Basic Factors of Production

The four basic factors (resources) of production are:

- 1) Land- such as land, trees and minerals
 - 2) Labor- the mental and physical skills of individuals
 - 3) Capital- such as tools, machines and factories used in production or to facilitate production
 - 4) Entrepreneurship -The availability of natural resources, labour and capital is not sufficient to ensure economic success. These factors of production have to be combined and organised by people who see opportunities for making a profit and who are willing to take risks by producing goods and services in the expectation that they will be sold.
- ***It is not just a matter of what resources we have but also of how well we use them.***



The Concept of Opportunity Cost

- Opportunity cost of any choice
 - **What we forego when we make that choice**
- Direct money cost of a choice may only be a part of opportunity cost of that choice
- Opportunity cost of a choice includes both explicit costs and implicit costs
 - **Explicit cost—dollars actually paid out for a choice**
 - **Implicit cost—value of something sacrificed when no direct payment is made**



The Concept of Opportunity Cost

- All production carries an opportunity cost
 - **To produce more of one thing**
 - Must shift resources away from producing something else
- The Principle of Opportunity Cost
 - **The concept of opportunity cost sheds light on virtually every problem that economists study, whether it be explaining the behavior of consumers or business firms or understanding important social problems like poverty or racial discrimination**
 - **All economic decisions made by individuals or society are costly**
 - **The correct way to measure the cost of a choice is its opportunity cost—that which is given up to make the choice**



Scarcity, Choice, and Opportunity Cost

Limited Resources & Unlimited Wants



Scarcity



Choices



Opportunity Cost



The World of Trade-Offs

Whenever resources are used for any activity, the user is *trading off the opportunity* to use those resources for other things.

The value of the trade-off is represented by the opportunity cost.

Opportunity Cost = Value of best foregone alternative

The Concept of Opportunity Cost

Gardening



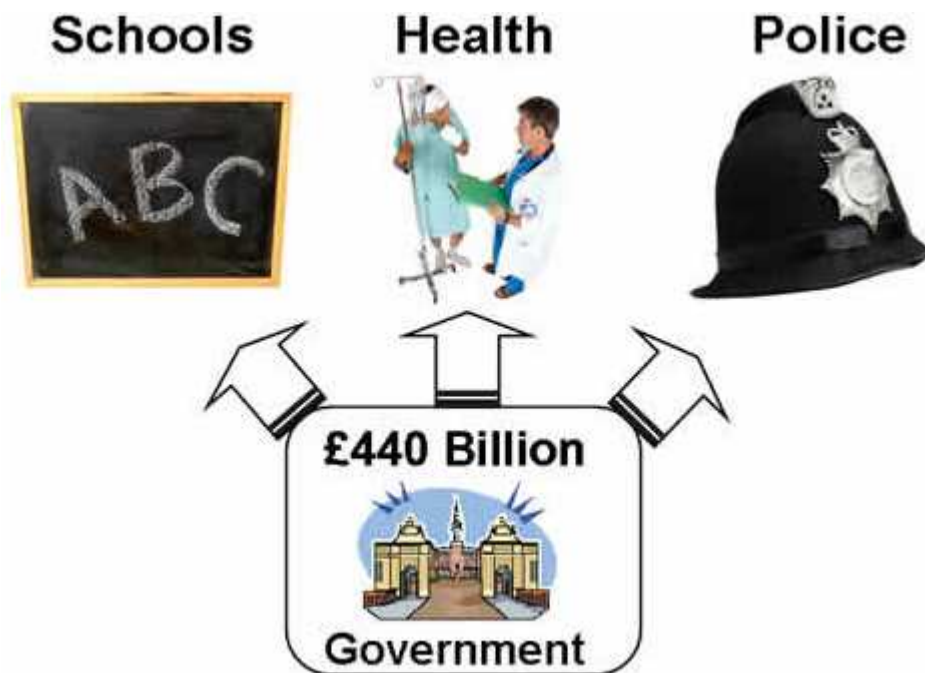
Washing



Drinking



The Concept of Opportunity Cost



The World of Trade-Offs

Examples of Opportunity Cost

Who is making the choice?	What they choose	The opportunity cost (what they could have had)
BUSINESS	<input type="checkbox"/> New computers <input type="checkbox"/> New workers <input type="checkbox"/> Office party	<input type="checkbox"/> New fax <input type="checkbox"/> Delivery van <input type="checkbox"/> Pay for boss!
GOVERNMENT	<input type="checkbox"/> Unemployment benefit <input type="checkbox"/> Weapons	<input type="checkbox"/> New roads <input type="checkbox"/> More hospital beds
INDIVIDUALS	<input type="checkbox"/> Mars bar <input type="checkbox"/> T-shirt <input type="checkbox"/> Beach holiday	<input type="checkbox"/> Twix bar <input type="checkbox"/> DVD <input type="checkbox"/> Fixing the roof



Production Possibilities Curve (PPC)

Opportunity cost graphically:

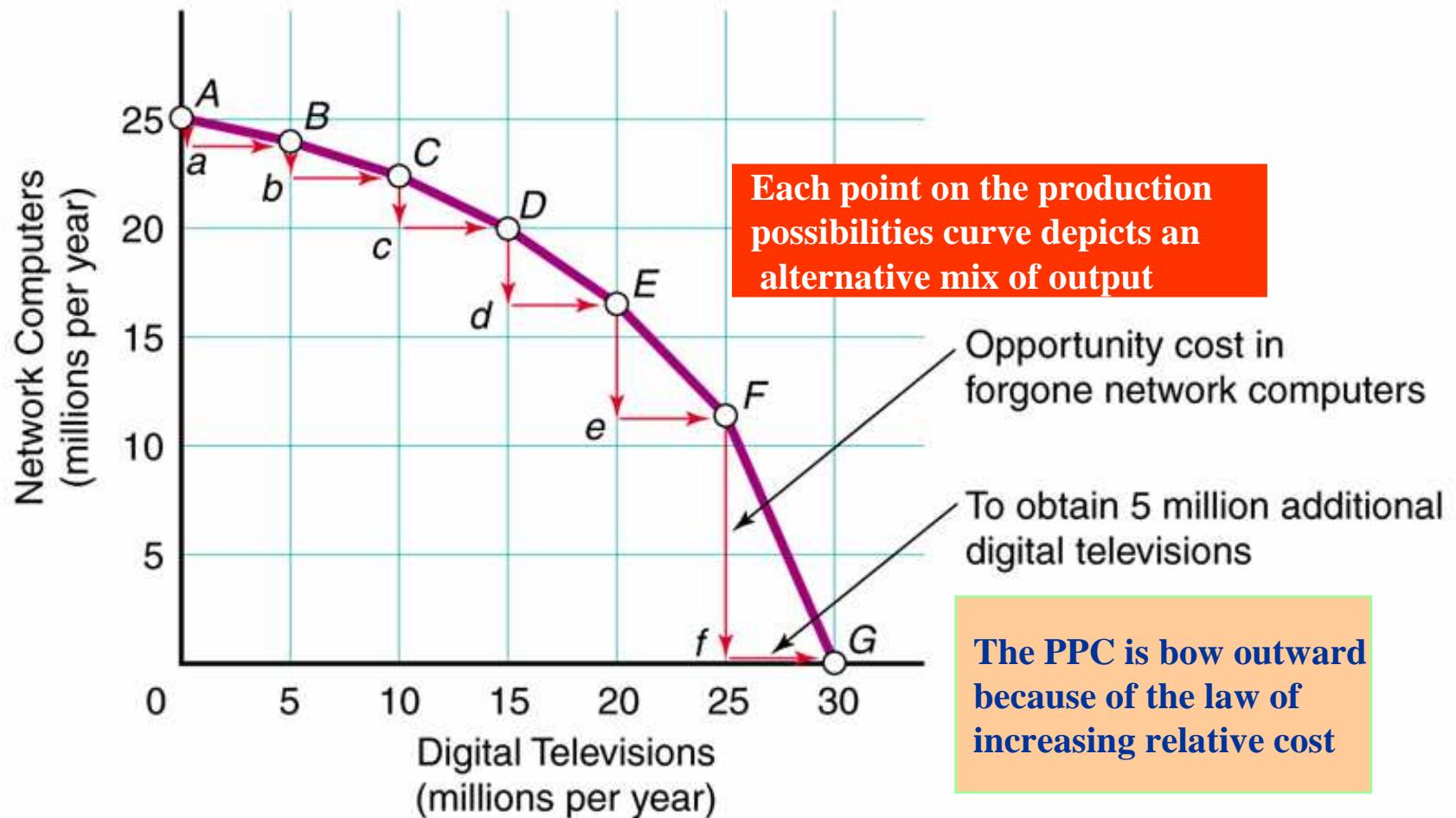
The production possibilities curve (PPC) represents all possible combinations of total output that could be produced assuming

- **There is a fixed amount of productive resources for the time period**
- **The efficient use of those resources**
- **Resources are fully employed**
- **Production is for a specific time period**
- **Technology does not change over the time period**

Society's Trade-Off Between Network Computers and Digital Televisions

Combination	Network Computers (millions per year)	Digital Televisions (millions per year)
<i>A</i>	25.00	0
<i>B</i>	24.00	5
<i>C</i>	22.50	10
<i>D</i>	20.00	15
<i>E</i>	16.50	20
<i>F</i>	11.25	25
<i>G</i>	0	30

The Law of Increasing Relative Costs

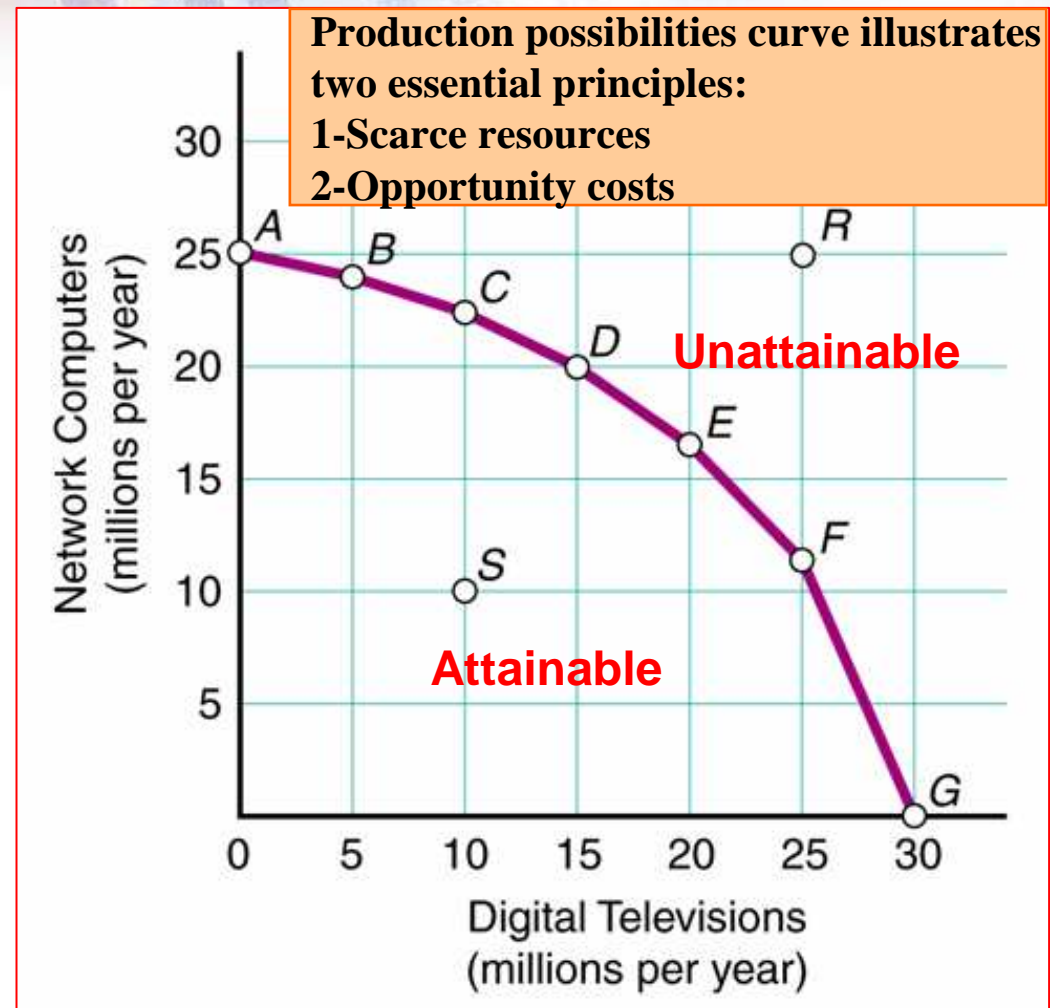


Society's Trade-Off Between Network Computers and Digital Televisions

Point R lies outside the PPC and is impossible to achieve during the time period assumed.

If the nation is at point S, it means that its resources are not being fully utilized. We have unemployment.

Point S is called an inefficient point, which is defined as any point below the PPC.

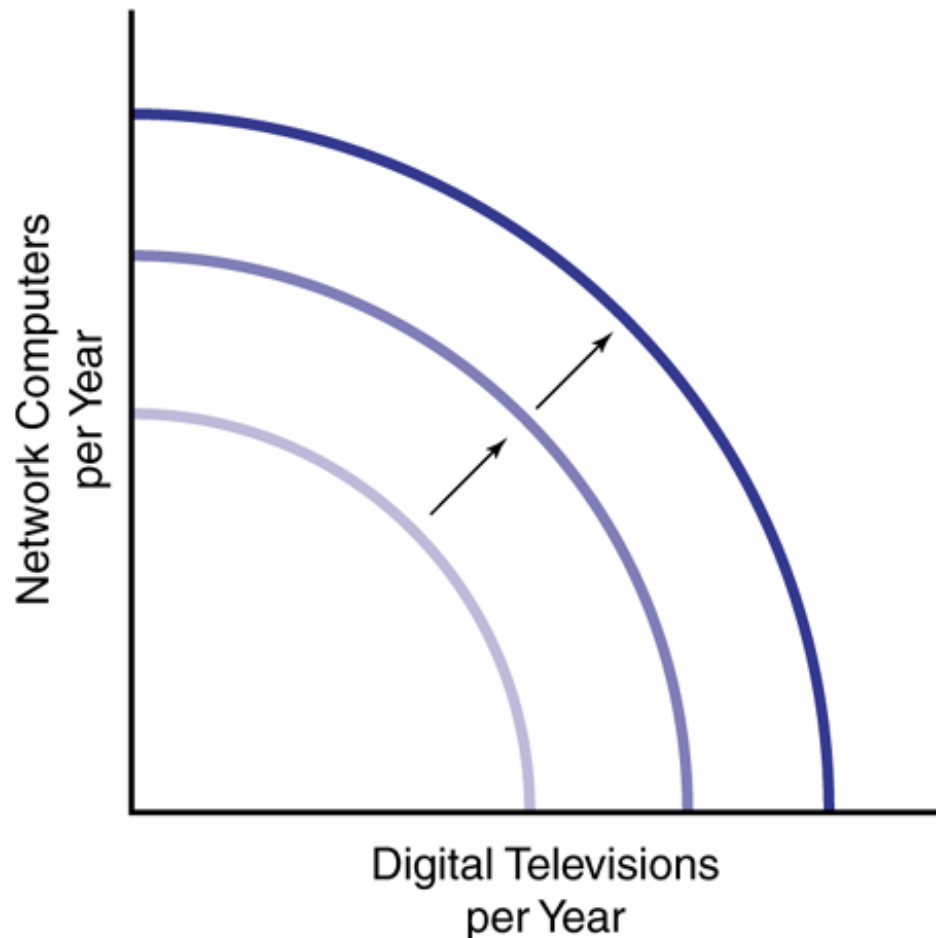




The Law of Increasing Relative Costs

- The opportunity cost of additional units of a good generally increases as society attempts to produce more of that good.
- The reason that we face the law of increasing relative cost (which causes the PPC to bow outward) is that *certain resources are better suited for production of some goods than they are for other goods.*

Economic Growth Allows for More of Everything



Economic growth

Increases the production possibilities of both network computers and digital televisions

- **Consumer goods**

- Goods produced for personal satisfaction

- **Capital goods**

- Goods used to produce other goods

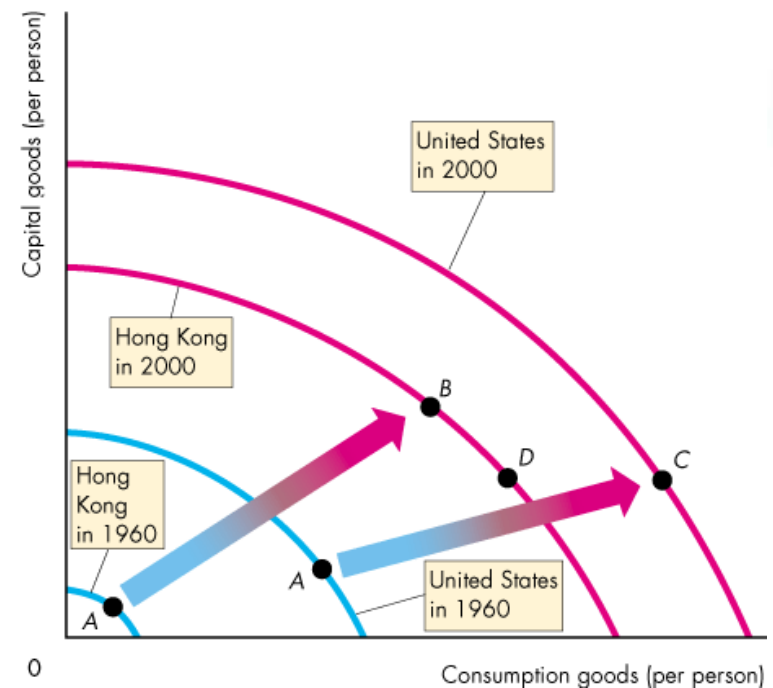


Economic Growth

- If economy is already operating on its PPF
 - **Cannot exploit opportunity to have more of everything by moving to it**
- But what if the PPF itself were to change? Couldn't we then produce more of everything?
 - **This happens when an economy's productive capacity grows**
- Many factors contribute to economic growth, but they can be divided into two categories
 - **Quantities of available resources—especially capital—can increase**
 - An increase in physical capital enables economy to produce more of everything that uses these tools
 - More factories, office buildings, tractors, or high-tech medical equipment
 - Same is true for an increase in human capital
 - Skills of doctors, engineers, construction workers, software writers, etc.
 - **Technological change enables us to produce more from a given quantity of resources**

Economic Growth

- By 2000, Hong Kong's production possibilities (per person) were still smaller than those in the United States.
- But Hong Kong grew faster than the United States grew by devoting more of its resources to capital accumulation.





Recessions

A slowdown in overall economic activity when resources are idle

- **Widespread unemployment**
- **Factories shut down**
 - Land and capital are not being used

An end to the recession would move the economy from a point inside its PPF to a point on its PPF

- **Using idle resources to produce more goods and services without sacrificing anything**
 - Can help us understand an otherwise confusing episode in economic history



Specialization and Exchange

- Specialization
 - **Method of production in which each person concentrates on a limited number of activities**
- Exchange
 - **Practice of trading with others to obtain what we want**
- Allows for
 - **Greater production**
 - **Higher living standards than otherwise possible**
- All economics exhibit high degrees of specialization and exchange



Resource Allocation

- Problem of resource allocation
 - **Which goods and services should be produced with society's resources?**
 - Where on the PPF should economy operate?
 - **How should they be produced?**
 - No capital at all
 - Small amount of capital
 - More capital
 - **Who should get them?**
 - How do we distribute these products among the different groups and individuals in our society?



Resource Allocation

- **Traditional Economy**
 - Resources are allocated according to long-lived practices from the past
- **Command Economy (Centrally-Planned)**
 - Resources are allocated according to explicit instructions from a central authority
- **Market Economy**
 - Resources are allocated through individual decision making



The Nature of Markets

- A market is a group of buyers and sellers with the potential to trade with each other
 - **Global markets - Open Economy**
 - Buyers and sellers spread across the globe
 - **Local markets - Closed Economy**
 - Buyers and sellers within a narrowly defined area



Resource Ownership

- **Communism**
 - **Most resources are owned in common**
- **Socialism**
 - **Most resources are owned by state**
- **Capitalism**
 - **Most resources are owned privately**



Types of Economic Systems

- An economic system is composed of two features
 - **Mechanism for allocating resources**
 - Market
 - Command
 - **Mode of resource ownership**
 - Private
 - State

Types of Economic Systems

Resource Allocation

Market

Command

Private

Market
Capitalism

Centrally
Planned
Capitalism

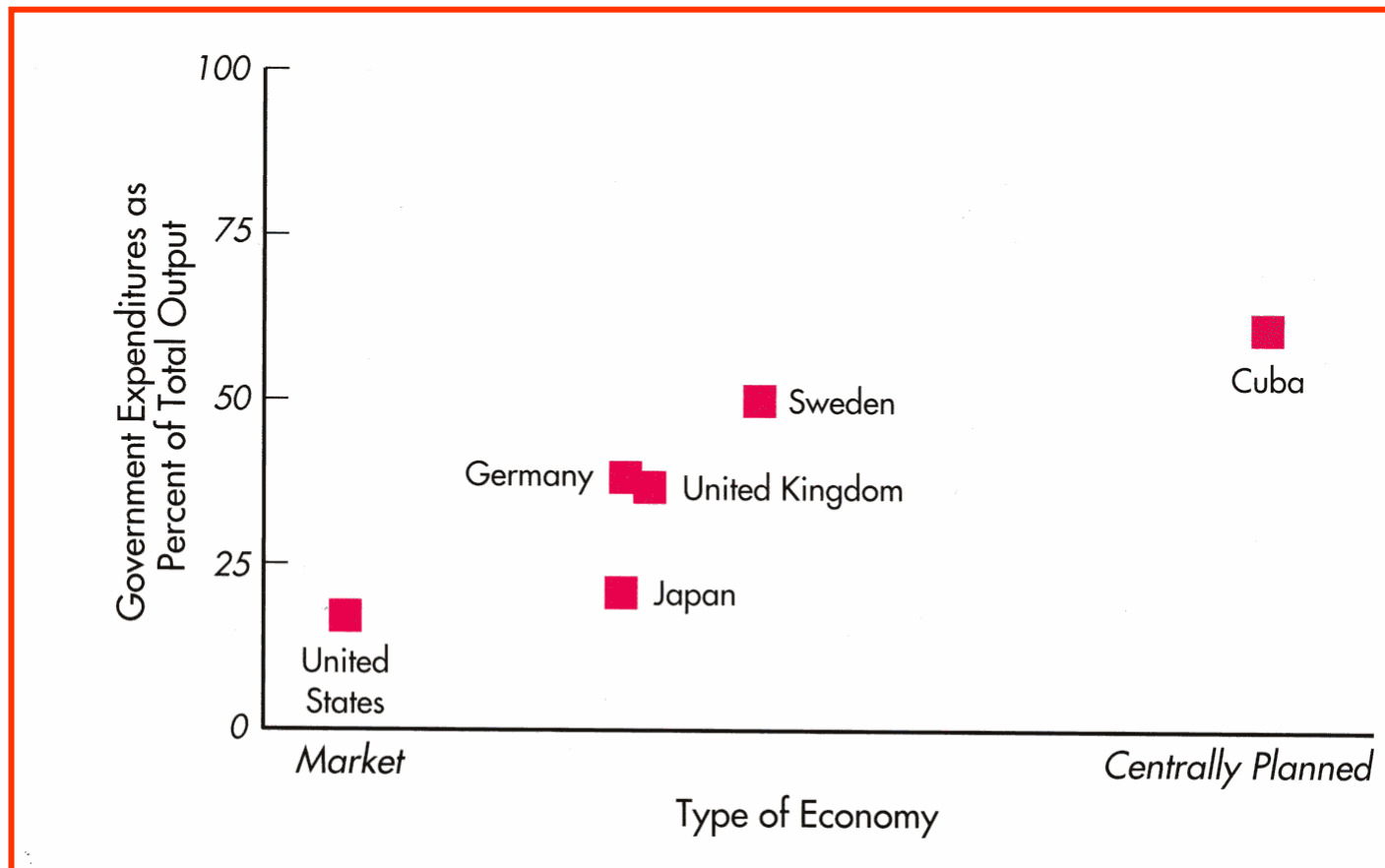
**Resource
Ownership**

State

Market
Socialism

Centrally
Planned
Socialism

Types of Economic Systems





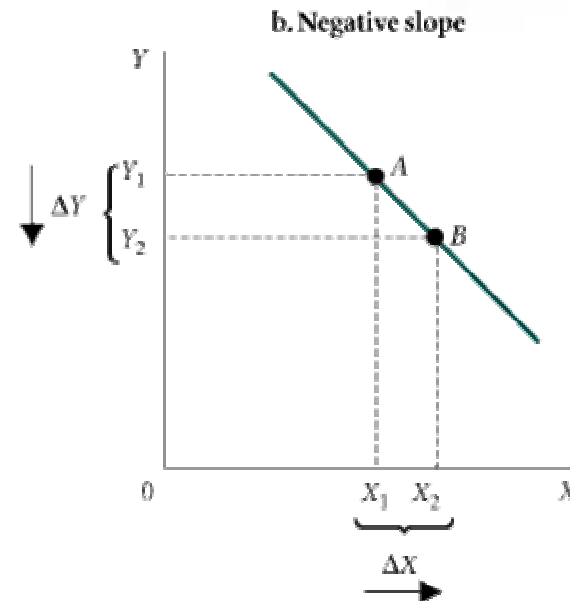
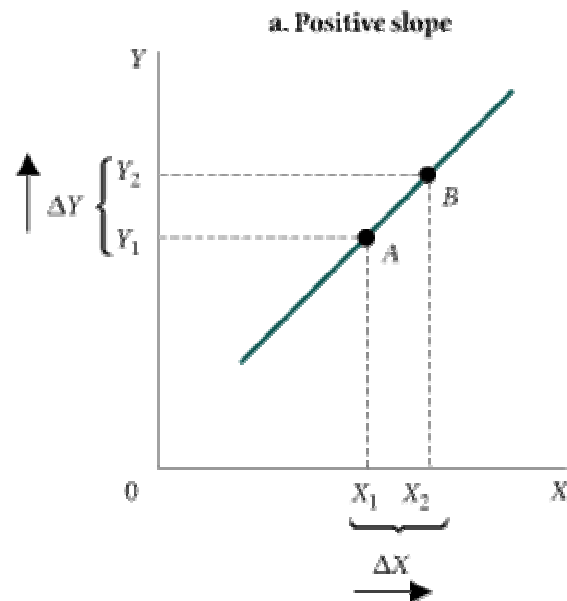
Slopes of Straight Lines

- **Indicates how much the vertical variable changes for a given change in the horizontal variable**
- **Vertical Change divided by the horizontal Change**
- **Slope = Change in the vertical distance / change in the horizontal distance**

Types of Economic Systems

An **upward-sloping** line describes a **positive relationship** between X and Y.

A **downward-sloping** line describes a **negative relationship** between X and Y.

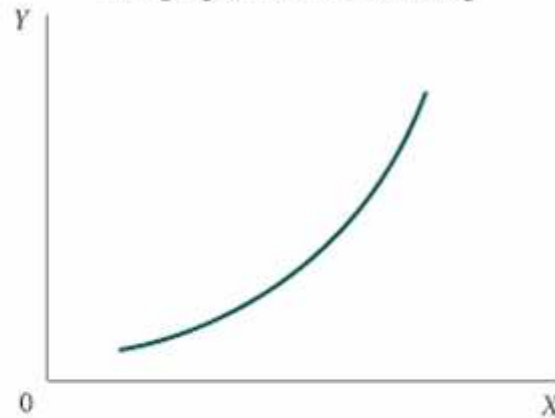


Types of Slopes

a. Slope: positive and decreasing



b. Slope: positive and increasing



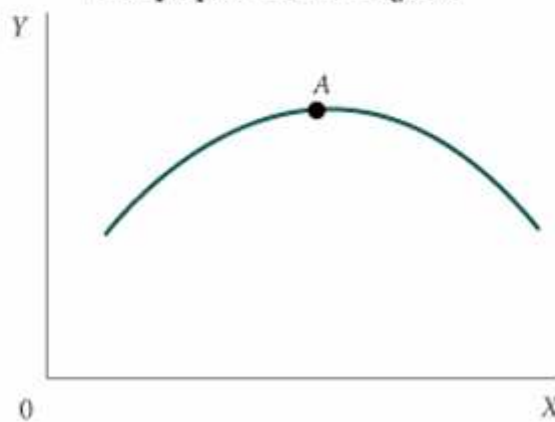
c. Slope: negative and increasing



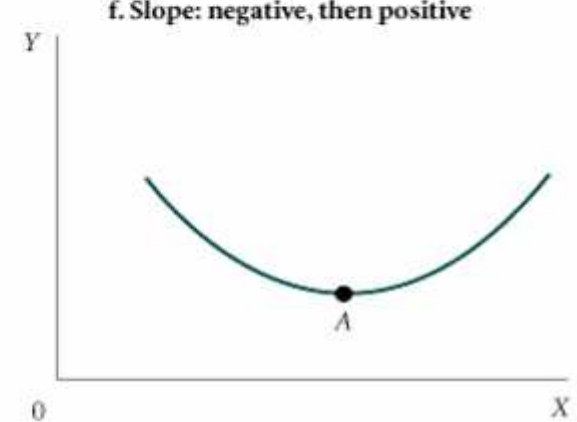
d. Slope: negative and decreasing



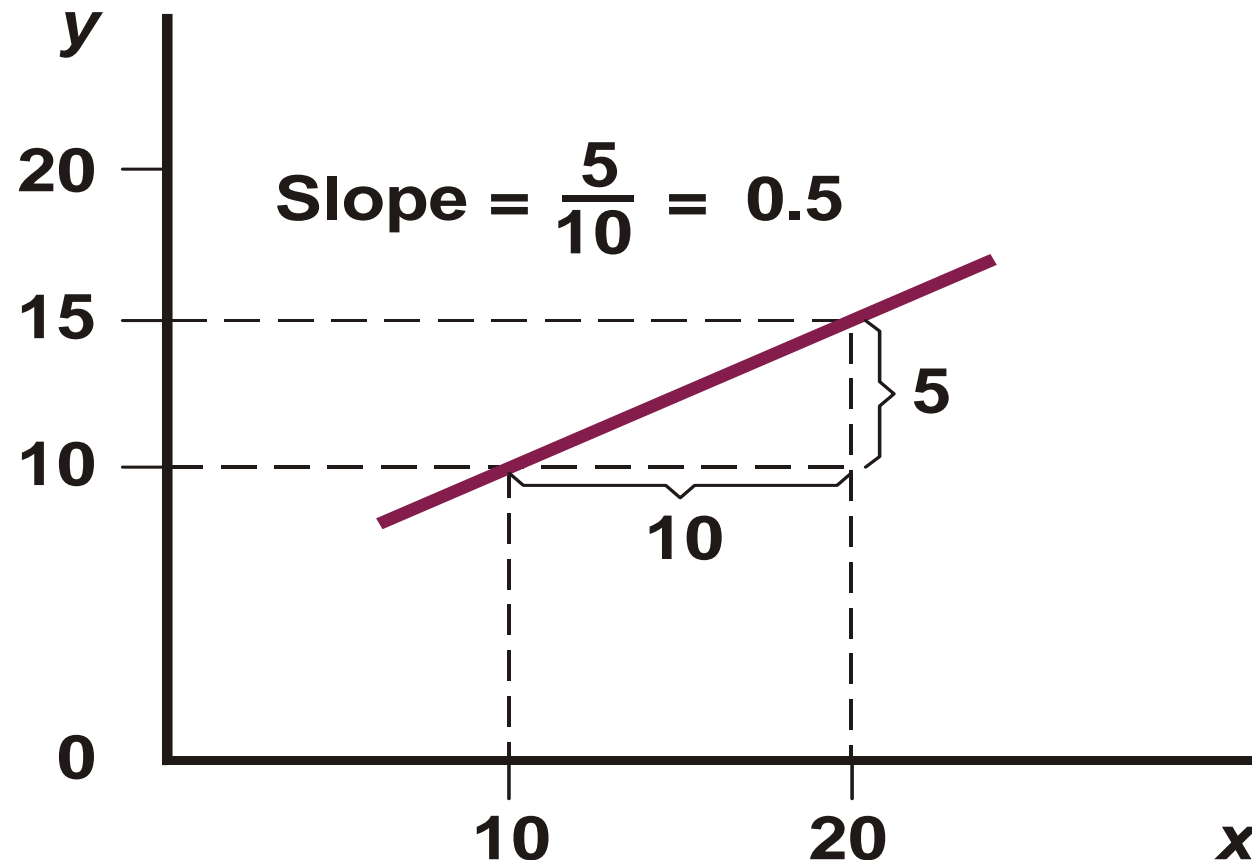
e. Slope: positive, then negative



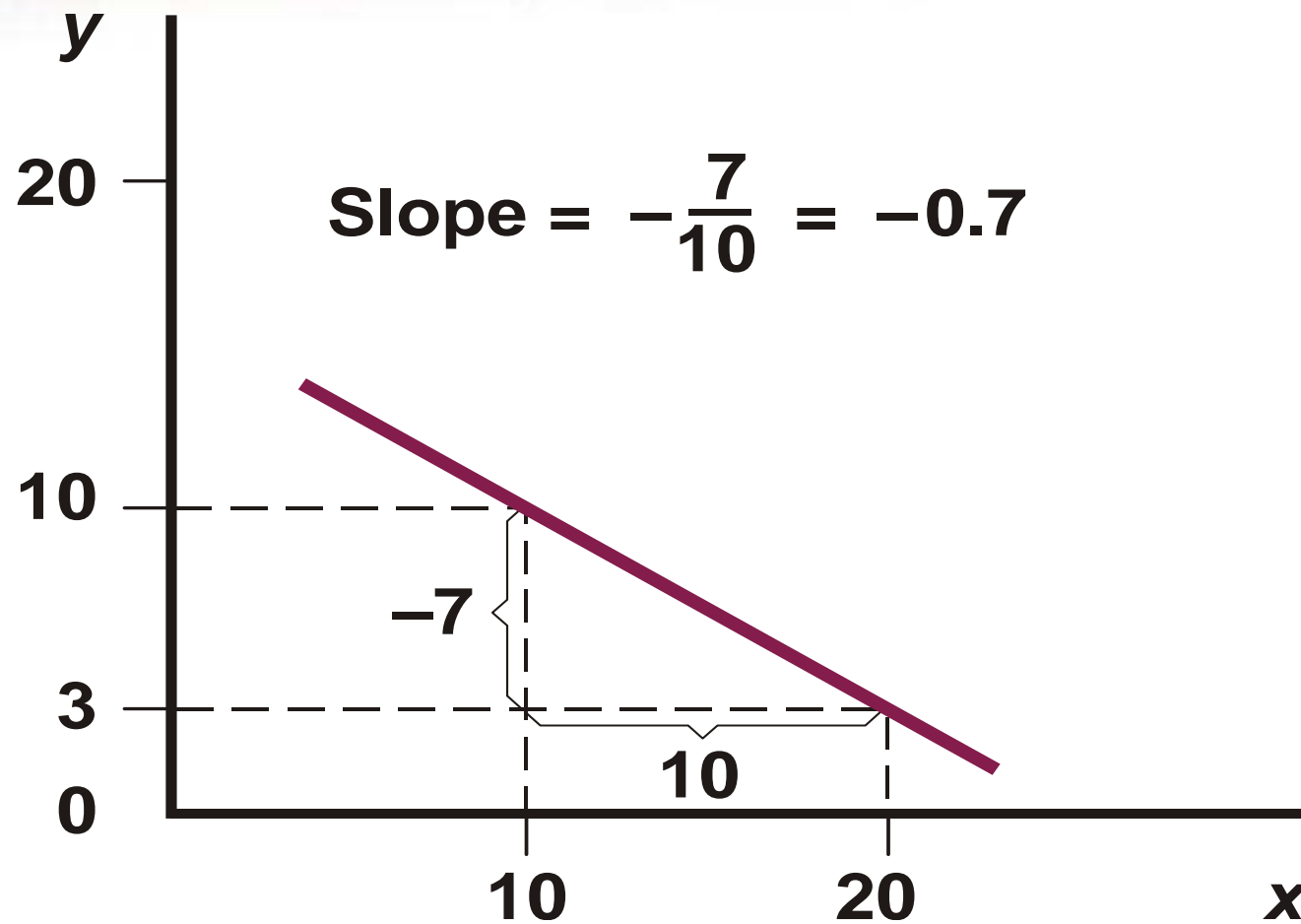
f. Slope: negative, then positive



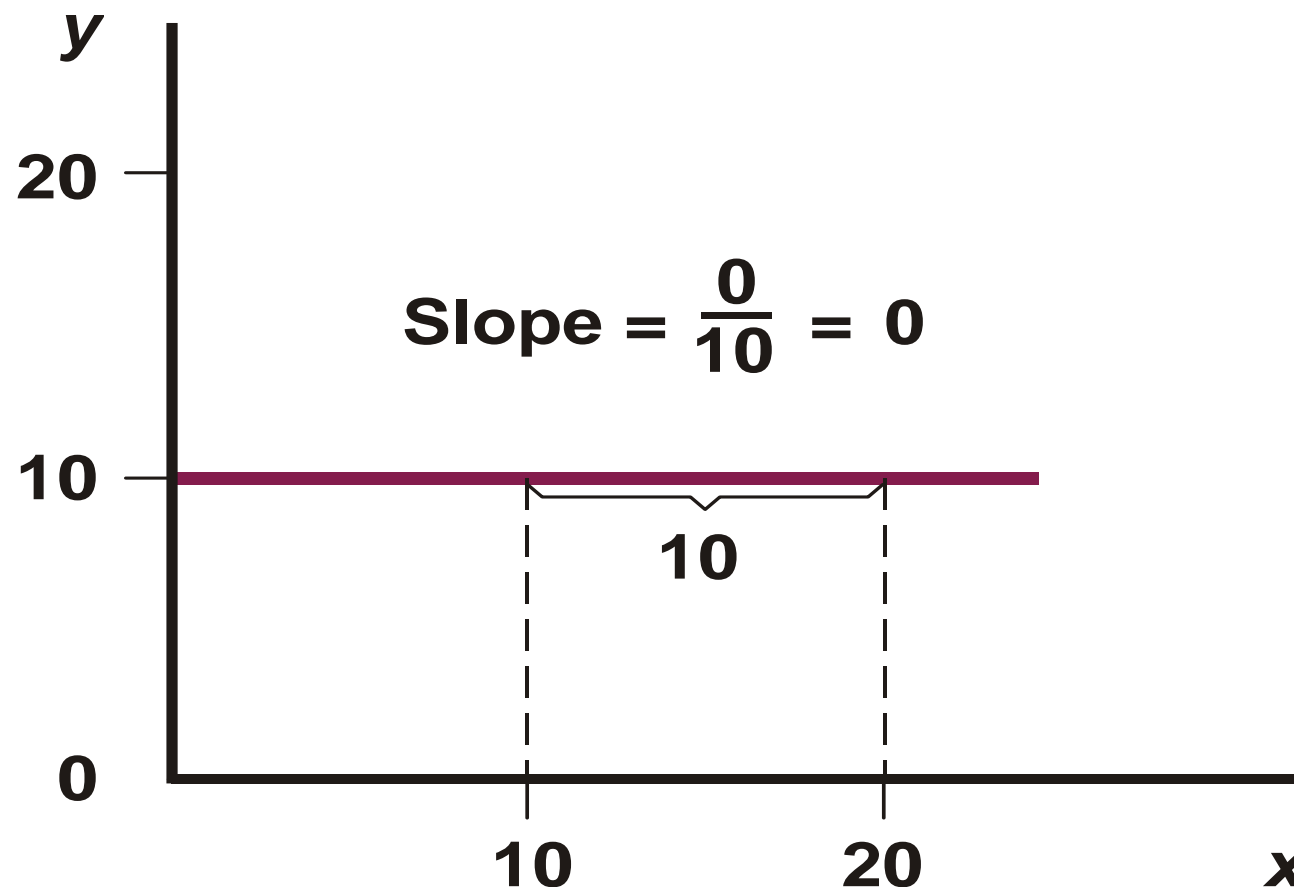
Alternative Slopes for Straight Lines



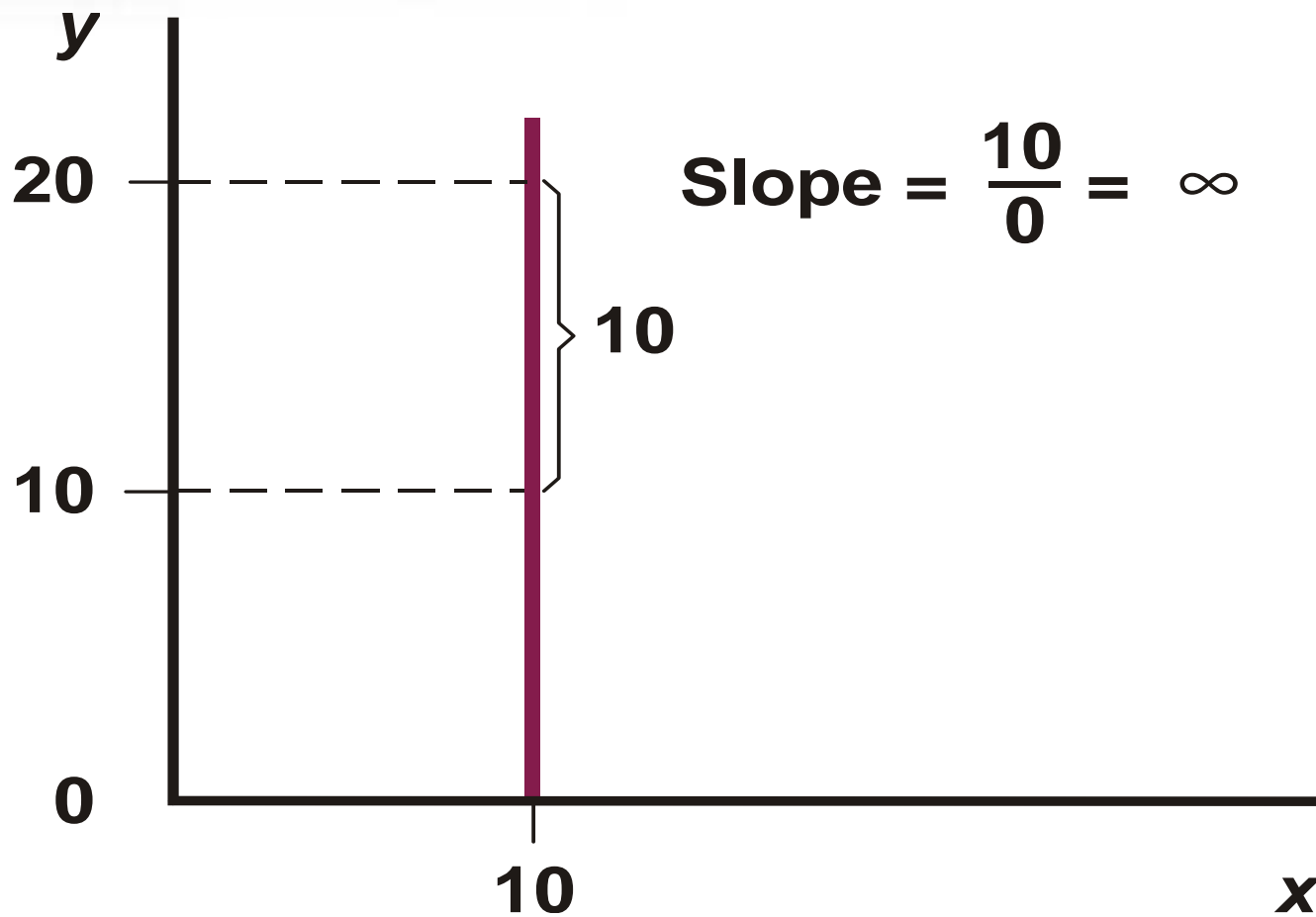
Alternative Slopes for Straight Lines



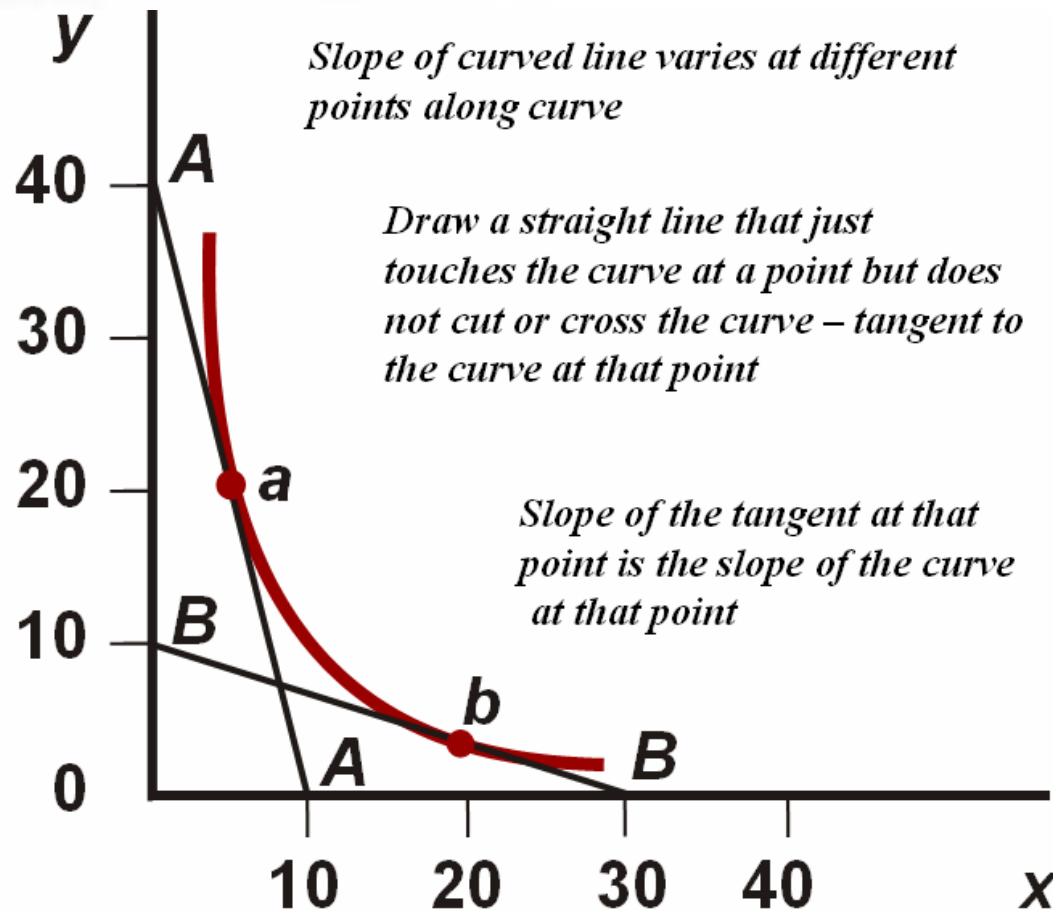
Alternative Slopes for Straight Lines



Alternative Slopes for Straight Lines



Slopes at Different Points on a Curved Line



With line AA tangent to the curve at point a, the horizontal value increases from 0 to 10 while the vertical value falls from 40 to 0 → slope of -4



Thank You for Your Attention

