Unit Question:

How do Economists Think?
**What is economics?** Simply, economics is the study of decision-making. The type of decision-making involved in economics is based on the choices of how to use the resources available to produce the most desirable effect.

Consider your own life and the daily decisions you make. You want things, but you are limited in getting what you want by things such as a lack of money or time. Every day you make choices about what to do to get what you want. That is economics.

The famous economist Alfred Marshall said, “Economics is a study of man in the ordinary business of life"
Economics is intertwined with many other subjects ranging from history and law to the environment and philosophy.

Unlike most subjects that are based on mastering a body of knowledge, economics at its core is study of a way of thinking and approaching problem solving.

The centrality of economics as a way of thinking is often shown by economists asking “What is your model?”
The term “economics” comes from the ancient Greek word “oikonomios” which meant “skilled in managing a household”.

Not a very glamorous beginning for an academic subject. However, it demonstrates an important fact about the study of economics – economists did not invent or create economics, they study existing systems.
Modern economists recognize that most people live successful lives without knowing any formal economics. People simply use their life experience and intuition to guide their decisions.

Modern economists do not design economic systems. Instead, they study existing systems, try to develop ways of making them better and offer advice to people, businesses and governments.

Important insight into economic thinking: a large part of economics is intuitive.

Intuition is really a form of logic that is processed quickly.

A great deal of economic thought is based around trying to explain intuition.
Adam Smith is credited as the father of modern economic thought. His book, *The Wealth of Nations* argued that free trade between people and nations would produce the greatest wealth for society.

Adam Smith introduced the concept of the “invisible hand” of the market that guided individual self-interest to produce the greatest outcome for society.

The famous quote, “It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest”.

Role of Economists

The current economic crisis has also been a crisis of economics.

During the Great Depression, John Maynard Keynes famously hoped that, “If economists could manage to get themselves thought of as humble, competent people on a level with dentists, that would be splendid.”

More recently, Gregory Mankiw wrote that, “the field has evolved through the efforts of two types of macroeconomist—those who understand the field as a type of engineering and those who would like it to be more of a science. Engineers are, first and foremost, problem solvers. By contrast, the goal of scientists is to understand how the world works.”

Regardless of how economists view themselves, their work has been to develop a systematic way to approach problems.
Economists study “cause and effect” relationships.

The difficulty is that an action can cause many outcomes, some direct, some indirect, and some counteracting each other.

**Tyler Cowen** at Marginal Revolution said, “economics is really, really, really, really, really, really, really, really, really hard. And that's leaving out a few of the "reallys."

How do they do it? They simplify through models.
A model is a simple system than can be used to explain more complex systems. Stories, analogies, and myths are all examples of models.

While economists will employ stories, analogies, and myths, mostly they also use mathematics to construct models.

Economist prefer mathematical models because they can be very exact and structured, and can quantify or set a number to a outcome that can then be compared to reality.

Economist try to make their work logically consistent – which they describe a “rigorous”.

Economists use numbers and statistics to form and test their models of everything from human behavior to international markets.

In many cases, the math is just a idea expressed in very exact and organized language.
When economists build models they make assumptions about the world.

Some of the most common assumptions are:

• People are rational
• People make decisions based on their own self-interest
• People use the best information available
• People can place a value on outcomes

• That all other things remain equal – economists try to limit the endless causation of an action by assuming that except for the things they want to study everything else remains unchanged. This is called the *ceteris paribus* assumption.
Models are, at best, approximations of reality.

A model has to strike a balance between reality and usefulness.

Economist Paul Romer noted this when he wrote, “the purpose of a model is not to be realistic. After all, we already possess a model that is completely realistic – the world itself. The problem with that “model” is that it is too complicated to understand.”

Nobel Prize winning economist Milton Friedman wrote, the “relevant question to ask about assumptions” of a theory is not whether they are descriptively “realistic,” for they never are, but whether the are sufficiently good approximations for the purpose in hand. And this question can be answered only by seeing whether the theory works, which means whether it yields sufficiently accurate predictions.”
Economists are constantly working to refine their models and build in complexity.

An article from the Economist, “The Other Worldly Philosophers”, notes the importance of models and assumption to economists’ work by saying, “It is the starting point to which the theorist return after every ingenious excursion. Few economists really believe all of the assumptions, but few would rather start anywhere else.”

Nobel Prize winning economist Paul Samuelson said (using the word “theory” for “model”), “Facts can only dent a theorist’s hide...In economics it takes a theory to kill a theory.”
Nobel Prize winning economist Paul Krugman responded to those who criticize economists for their reliance on mathematical models by writing, “[Some people] claim to reject neoclassical economics, but their alternative is not an alternative model but a lot of verbiage; they talk at the economy, and imagine that by so doing they achieve a higher level of sophistication and realism than economists who try to express their ideas in terms of little models. And they’re kidding themselves; all they’ve done is hide their implicit models and prejudices behind a dust cloud.”

Basically, everyone uses models when they think and argue about the economy – the only difference is that economists are open and up front about what they are doing.
Models involve money because money as a way for measuring and comparing choices and outcomes. For example, it is very difficult to compare apples and oranges, but it is not difficult to compare them in terms of sale price or cost of production.

Everyday, farmers, storeowners, and shoppers use money to compare apples and oranges. In fact, economists are not really comparing apples and oranges, rather they are studying the comparisons made by producers and consumers of apples and oranges.

Economists’ desire to quantify choices can be summed up by Angus Maddison who wrote that quantification “is more readily contestable and likely to be contested.” However, he went on to say that, “no sensible person would claim that [quantification] can tell the whole story”.
Economic judgments can be divided into either positive or normative forms.

- **Positive economics** is descriptive – describing an economic process or stating a measurement. Basically, positive economics is a statement about “what is”. Modern economic modeling typically focuses on positive economic judgments.

- **Normative economics** involve a value statements about economic issues. Basically “how the economy should work”. Economic policy is determined by normative economic judgments.
Informed economic choices involve both positive and normative judgments.

Consider an economy that is in recession with an unemployment rate of 10% and an inflation rate of 1%.

Positive economics involve making technical judgments involved in building a model of the economy. That model could show that lowering the unemployment rate to 5% would mean raising inflation to 4%. This is a statement of facts and relationships.

Normative economics would make a value judgment that having an unemployment rate of 5% and inflation of 4% is preferable to an unemployment rate of 10% and inflation of 1%. This is a value judgment that unemployment is worse than inflation.
Economists are good at positive judgments. However, the normative judgments involved in economics should not be left up to economists.

For example, should a soldier wounded so severely in combat that they are now brain dead and have no chance of recovery be given the highest quality medical care?

There is no one correct answer to this difficult question.

In answering difficult questions, economics cannot simply provide an answer since economic efficiency may not be the most desired outcome.
Frustration with Economists

People are often frustrated by economists because economists seem to give multiple answers to the same question. Harry Truman is famous for having said, “Give me a one-handed economist! All my economists say, "On the one hand on the other."

This criticism does not recognize that seemingly simple economics questions are actually complex and that fully answering the question requires addressing the complexity.

In addition, many economists answer questions with an answer utilizing positive analysis while many people want answers in which economists make normative judgments.
Scarcity

The most basic economic realization is that we live in a world of limits.

Economists refer these limits as \textit{scarcity} and believe that efficiently using these resources is an important part in economic thinking.

However, efficiency is not the only important consideration. Issues of social norms, morality and ideals, are also important in making economic choices.
Economic choice is the balancing of needs and wants.

Economists use the term **opportunity cost** to describe the fact that any decision or action costs the resources that are made unavailable for other actions.

A good way to remember the idea of opportunity cost is to connect it with the expression “there is no such thing as a free lunch”.
Decisions Based on the Current Situation

The process of making decisions based on opportunity cost means recognizing the real value of the costs involved in the choices. This can sometimes be difficult and can result in people making decisions based on sunk costs.

Sunk cost is a cost that has already been incurred and cannot be changed or gotten back.

For example, a person who is willing to send $500 on fixing the transmission of a car that is only worth $500 because they just put in $200 in brake repairs. The price paid for the brake repairs is irrelevant to the current decision.

The past is the past, decisions are made on the present and the expectations for the future. Think of the expression, “Don’t cry over spilt milk”. 
Production Possibilities

A basic economic model that describes opportunity cost is a Production Possibilities Curve. This model shows the different amounts an economy could produce if it efficiently used all of its available resources as well as the trade-offs involved in opportunity cost.

The production possibilities curve shows the full range of choices if they use all of their resources at full efficiency. Currently, they can produce options A, B and C. They cannot produce D, unless they get more resources or become more efficient.
The shape of production possibilities curve shows increasing opportunity cost because increasing the production of one output requires increasing amounts of resources be used in production of that good.

For example, if you are making a stone wall, you will start by using the stones closest to where the wall will be (lowest cost to gather). After using those, you will use the stones farther away (higher cost to gather).
Production Possibilities Curve and a Growing Economy

If an economy becomes better at producing something – through having a larger workforce, more resources or better technology – then the production possibilities curve will shift outward from the point of origin.

If the change is directed to one part of the economy, then only one part of the production possibilities curve will shift outward from the point of origin.