

Cosmic Economics: Fundamental Concepts

Basic Economics · Answer Key · 8 Questions

1. The scarcity of a resource, like Helium-3 on the Moon, influences its economic value. Which economic concept best describes this relationship?

- A) Opportunity Cost
- B) Marginal Utility
- C) Supply and Demand**
- D) Comparative Advantage

2. If a nation decides to invest heavily in asteroid mining instead of developing terrestrial resources, what economic principle is exemplified by the forgone benefits of the terrestrial development?

- A) Inflation
- B) Opportunity Cost**
- C) Economic Bubbles
- D) Fiscal Policy

3. The potential for vast mineral wealth on asteroids, if realized, could significantly increase the global supply of certain elements. This scenario would likely lead to:

- A) Increased prices due to higher demand
- B) Decreased prices due to increased supply**
- C) Stagnation in technological development
- D) A decrease in the utility of these elements

4. The cost of transporting materials from Mars back to Earth is currently extremely high. This represents a significant barrier to entry for Martian resource markets, reflecting the economic principle of:

- A) Externalities
- B) Barriers to Entry**
- C) Monopolistic Competition
- D) Rent-seeking Behavior

5. When considering the development of space tourism, the benefit derived from the first tourist visiting orbit might be high, but the benefit from the tenth tourist might be lower. This illustrates:

- A) Economies of Scale
- B) Diminishing Marginal Returns**
- C) Network Effects
- D) Perfect Competition

6. A nation that specializes in building advanced satellite technology for communication, while another nation specializes in launching rockets, and they trade with each other, is demonstrating:

- A) Autarky
- B) Comparative Advantage**
- C) Protectionism
- D) Economic Nationalism

7. The development of reusable rocket technology, like that pioneered by SpaceX, significantly lowers the cost per launch. This is an example of:

- A) Diseconomies of Scale
- B) External Economies
- C) Economies of Scale**
- D) Market Failure

8. The establishment of a self-sustaining colony on the Moon would require a robust internal economy. For this to occur, it would need to overcome the challenge of:

- A) Universal Basic Income
- B) Externalities
- C) Autarky
- D) Scarcity of Labor**