

SHORT ANSWER QUESTIONS

SECTION 1: New Directions in Science

- 1). How did Copernicus demonstrate Ptolemy was wrong (p.402)?
- 2). Why did many educated people in the 16th century reject Copernicus' arguments (p.402 and critical thinking)?
- 3). The Enlightenment philosopher Thomas Paine observed that the long habit of believing a thing true gives it the superficial appearance of being right. What does he mean by this (critical thinking)? Provide a concrete example demonstrating Paine's thinking.
- 4). Galileo offended many scientists by declaring that the heavenly bodies were imperfect and changing. He was an outspoken man and made many enemies. His enemies persuaded the Catholic Church to force him to publicly admit his errors or be put to death. Galileo declared at the trial that the earth stood motionless at the center of the universe. But as he left the court after the trial Galileo whispered softly under his breath, "And yet it moves." Why did so many people feel so threatened by Galileo's ideas (critical thinking)?
- 5). Why was the law of gravity Newton's most important contribution to science (p.403)?
- 6). Galileo and Paracelsus both made enemies due to their research. What do these two scientists share in common that created so many enemies for them (critical thinking)?

Note: read the story about the professor of medicine as described on page 404 to help develop an answer to this question.

- 7). Explain why mathematics was so important to the scientific method (critical thinking).

Identify: Rene Descartes (p.402), scientific method (p.402), Nicolaus Copernicus (p.402), Tycho Brahe (p.402), Johannes Kepler (p.403), Galileo Galilei (p.403), Isaac Newton (p.403), Paracelsus (p.404), scholasticism (*Google*), humanism (*Google*).

SECTION 2: Enlightenment Thinkers

1). Why are the late 1600s and the entire 1700s referred to as the “Age of Reason” (p.405)?

2). Why did Thomas Hobbes believe the best government was one in which the ruler had absolute power (*Google* and critical thinking)?

Note: you will probably find the website called *Locke vs. Hobbes* helpful for answering the next three questions (<https://sites.google.com/site/lockevshobbes1221/home>).

3). In what sense was John Locke’s view of the role of government more “optimistic” than Hobbes’ view (*Google* and p.406)?

4). Compare and contrast the similarities and differences between the philosophies of John Locke and Thomas Hobbes (*Google* and critical thinking). Draw a chart like the one below to organize your answer.

Locke & Hobbes: A Comparison	
Similarities	Differences

5). Why was Montesquieu especially impressed with the system of government that had developed in England by the mid-1700s (p.406)?

6). According to Montesquieu why was it so important government possess a system of “checks and balances” between the three branches of government (*Google* and p.407)?

7). Did Voltaire actually say the words, “I do not agree with a word you say but I will defend to the death your right to say it” (*Google* and critical thinking)?

8). What did Rousseau mean by the “general will” (p.408)?

Identify: Thomas Hobbes (p.405), John Locke (p.406), philosophes (p.406), physiocrats (p.406), Montesquieu (p.406), Voltaire (p.407), Jean Jacques Rousseau (p.408).

SECTION 3: Impact of the Enlightenment

- 1). Denis Diderot hoped his *Encyclopedia* would bring about a “revolution in the minds of men to free them from prejudice.” What was it about the *Encyclopedia* that could possibly rescue people from the darkness of prejudice and ignorance (critical thinking)?
- 2). In addition to the idea all people possessed “natural rights”, what three other themes characterized the Enlightenment (also known as the Age of Reason) (*Google* the following site: <https://study.com/academy/lesson/major-themes-of-the-enlightenment-reason-individualism-skepticism.html>).
- 3). What are three ways in which Enlightenment ideas spread across Europe (p.409)?
- 4). Describe the reforms introduced by enlightened monarchs (p.410-411).

Identify: Denis Diderot (p.409), salons (p.410), Emile du Châtelet (p.410).

CHAPTER SUMMARY

1. **During the 1500s and 1600s, the Scientific Revolution changed the way Europeans viewed the world.** Scholars developed a new method to study the natural world. Mathematics played a central role in the scientific method, as did experiments and observation. Although the new theories aroused fierce opposition, they were generally accepted.
2. **Philosophers tried to discover natural laws to explain human behavior.** Hobbes and Locke had differing views of human nature, but both influenced the French philosophes such as Montesquieu, Voltaire, and Rousseau. These philosophes put forward ideas about government and society influencing us to the present day.
3. **Enlightenment ideas spread from philosophers to ordinary people and to monarchs.** Enlightenment thinkers were confident that science and reason could solve the major problems facing society. Some absolute monarchs tried to use Enlightenment ideas to govern their nations, although they did so with limited results.