

Optics: Key Facts & Figures

Optics · Practice Test · 8 Questions

1. Who first correctly described the law of refraction, often known as Snell's Law, around 1621?

- A) Isaac Newton
- B) Christiaan Huygens
- C) Willebrord Snellius
- D) Galileo Galilei

2. In which year did Isaac Newton publish his groundbreaking work 'Opticks,' detailing his experiments and theories on light and color?

- A) 1678
- B) 1704
- C) 1727
- D) 1666

3. Which ancient scholar, often referred to as 'the father of optics,' wrote 'Kitab al-Manazir' (Book of Optics) around 1021 AD?

- A) Aristotle
- B) Ptolemy
- C) Ibn al-Haytham (Alhazen)
- D) Euclid

4. Galileo Galilei significantly improved the astronomical telescope and used it for observations starting in which year?

- A) 1589
- B) 1609
- C) 1632
- D) 1665

5. What is the approximate speed of light in a vacuum, a fundamental constant in optics and physics?

- A) 3×10^5 m/s
- B) 3×10^8 m/s
- C) 3×10^{10} m/s
- D) 3×10^2 m/s

6. Who proposed the wave theory of light in his 'Treatise on Light' (Traité de la lumière) published in 1690?

- A) Robert Hooke
- B) Christiaan Huygens
- C) Isaac Newton
- D) Thomas Young

7. Albert Einstein published his paper explaining the photoelectric effect in which pivotal year, contributing to the quantum theory of light?

- A) 1895
- B) 1905
- C) 1915
- D) 1925

8. Approximately what is the wavelength range (in nanometers) for visible light that the human eye can perceive?

- A) 100-200 nm
- B) 400-700 nm
- C) 800-1000 nm
- D) 1500-2000 nm