



TEST YOUR KNOWLEDGE

Refracting Telescopes

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1. A Dutch spectacle-maker is credited with having invented the refracting telescope in 1608. However, his telescope has very low magnification, and he believed that the device could be potentially used as a Spy Glass for military purposes and also for detecting pirates at sea. Can you name him?
 - a. Jacob Metius
 - b. Hans Lippershey
 - c. Sacharias Jansen
 - d. Christiaan Huygens
2. One year later (in 1609), this astronomer improved the Magnification of these Dutch devices and revolutionised astronomy by first pointing his telescope skyward for astronomical investigations. Can you name him?
 - a. Isaac Newton
 - b. Tycho Brahe
 - c. Galileo Galilei
 - d. Johannes Kepler
3. Originally, these devices were called Dutch Perspective Glasses. Subsequently, a Greek mathematician coined the word 'Telescope' in 1611 for one of Galileo's instruments presented at a banquet at the Accademia dei Lincei at Rome. Can you name him?
 - a. Giovanni Carandino
 - b. Giovanni Demisiani
 - c. Constantin Caratheodory
 - d. Leonidas Alaoglu
4. Galilean telescopes suffer from a very low field of view because of the Diverging lens used as the eyepiece to make the image erect. Later, a German astronomer used a Converging lens as the eyepiece to design a refracting telescope (in 1611) that produced a wider field of view and greater eye relief, but the final image was inverted (which did not matter much with astronomical observations). Can you name him?
 - a. William Herschel
 - b. Galileo Galilei
 - c. Heinrich Wilhelm Matthias
 - d. Johannes Kepler
5. A refracting telescope basically uses an Objective lens (Focal length = f_o) and an Eyepiece (Focal length = f_e). The Magnification of the telescope is generally determined by the formula:
 - a. $f_o \times f_e$
 - b. $f_o + f_e$
 - c. f_o / f_e
 - d. $f_o - f_e$
6. A Celestron NexStar 102 SLT refracting telescope has a 4-inch objective lens with a focal length of 660 mm. It is viewed with an eyepiece of focal length 25 mm to see the four bigger moons of Jupiter. What is the Magnification produced?
 - a. 25x
 - b. 26.4x
 - c. 29.4x
 - d. 20.23x

