Figure 3-20  (a) The moon’s orbit is tipped about 5° to the earth’s orbit. The nodes \( N \) and \( N' \) are the points where the moon passes through the plane of the earth’s orbit. (b) If the line of nodes does not point at the sun, the shadows miss and there are no eclipses at new moon and full moon. (c) At those parts of the earth’s orbit where the line of nodes points toward the sun, eclipses are possible at new moon and full moon.