

CHRONOLOGICAL CYCLES.

Dominical Letter ..... F. Solar Cycle ..... 22.  
 Golden Number ..... 10. Roman Indiction ..... 6.  
 Epact ..... 9. Julian Period ..... 6546.

ECLIPSES.

There will be five eclipses this year; three of the Moon, and two of the Sun; as follows:

I. The first will be an Eclipse of the Moon, on the morning of the 6th of January, at 10 o'clock and 34 minutes morning, and visible in North America.

The duration of this Eclipse is 2h. 20m.; and its size,  $5\frac{1}{2}$  digits on the Moon's north limb.

II. The second will be an Eclipse of the Sun, January 20th, invisible in North America. The time of Conjunction may be known by reference to the calendar. In high southern latitudes, this Eclipse will be central and annular.

III. The third will be an Eclipse of the Moon, on the evening of July 1st, at 5 o'clock and 47 minutes evening; and partly visible in North America.

The duration of this Eclipse will be 3h. 16m., and its size  $10\frac{1}{4}$  digits; the Moon rises at near the middle of the Eclipse, and will, when rising, be about three-fourths immersed in the earth's shadow. The Moon will rise more or less eclipsed throughout Canada and the United States.

IV. The fourth will be an Eclipse of the Sun, beginning on the evening of the 16th, and ending on the morning of the 17th of July; and invisible in North America. The time of Conjunction may be known by reference to the calendar. This Eclipse will be visible in Europe and Asia. In London it will commence a few minutes after the Sun rises, and at an hour and forty-four minutes after, the Sun will be about three-fourths covered.

V. The fifth will be an Eclipse of the Moon, on the evening of December 26th, at two o'clock and 31 minutes evening; and partly visible in North America.

The duration of this Eclipse is 3h. 38m., and the duration of total darkness, 1h. 38m. In Canada and the western part of the United States, it does not rise till after the end of total darkness; but it rises either partially or totally eclipsed, throughout the country.

TABLE OF THE TIMES OF THE RISING AND SETTING OF THE SUN AND MOON, AND OF THE TIMES OF THE EQUINOXES AND SOLSTICES, FOR THE YEAR 1820.

Month	Day	Time of Rising	Time of Setting
Jan	1st	7h 58m	4h 12m
Feb	1st	7h 50m	4h 12m
Mar	1st	7h 42m	4h 12m
Apr	1st	7h 34m	4h 12m
May	1st	7h 26m	4h 12m
Jun	1st	7h 18m	4h 12m
Jul	1st	7h 10m	4h 12m
Aug	1st	7h 2m	4h 12m
Sep	1st	7h 14m	4h 12m
Oct	1st	7h 22m	4h 12m
Nov	1st	7h 30m	4h 12m
Dec	1st	7h 38m	4h 12m

The superior planets, &c. are considered according to their position, to their western quadrants; and evening stars, from their eastern quadrants to their conjunction.