

ECLIPSES, ETC., FOR 1888.

In the year 1888 there will be five eclipses, three of the sun and two of the moon.

I. A total eclipse of the moon, 1888, January 28, visible in the evening, generally throughout North and South America, Europe, Asia and Africa. Eclipse begins at 5 o'clock, 30 m. Middle 6 h. 20 m. Ends 7 o'clock 9 m. Duration of total eclipse, 1 hour, 39 m.

II A partial eclipse of the sun, February 11th, 6 o'clock 38 m. in the evening. Invisible in North America, visible at the South Pole and southern part of South America.

III. A partial eclipse of the sun, July, 9th, 10 o'clock 30 m. in the morning invisible in North and South America. Visible in the Indian Ocean.

IV. A total eclipse of the moon, July 22nd, in the evening, and 23d in the morning. Visible, generally, throughout North and South America and portions of Europe, Africa and Pacific Ocean. Eclipse begins 11 o'clock, 3 m., middle, 12 h. 44 m., noon of 23d, ends, 1 o'clock, 36 m., noon of 23d. Duration of the total eclipse 1h. 53m.

V. A partial eclipse of the sun, August 7th, 1 o'clock 5 m. in the afternoon. Invisible here. Visible chiefly in the Artic Ocean, Norway, and Sweden and portions of Denmark and Greenland, and the extreme northerly part of North America and Asia.

MORNING STARS.

Venus until July 11th. Mars until April 12th. Jupiter until May 21st. Saturn until Jan. 22, after August 1st. Mercury until Jan. 18, after March 3, July 8, Oct. 31.

EVENING STARS.

Venus after July 11th. Mars after April 12th. Jupiter after May 21st, until Dec. 8, Saturn after Jan. 22. Mercury until March 3d, after May 10th, Aug 23, Dec. 28.

THE FOUR SEASONS.

Winter begins December 21st, 1887, at 1h. 20m., p. m., and lasts 89 days and 50 minutes.

Spring begins March 20th, 1888, at 5h 40m., p. m., and lasts 94 days, 3h and 1 min.

Summer begins June 20th, 1888, 7h, 14 min., and lasts 93 days 14 h, 39 m.

Autumn begins Sept. 23, 1888, at 4h. 9m., a m., and lasts 89 days, 16h and 2m.

Winter begins Dec. 21st. 1888, at 10h 11m., p. m.

MOVABLE FEASTS.

Septuagesima Sunday.....	Jan. 29.
Sexagesima Sunday.....	Feb. 5.
Quinquagesima Sunday.....	" 12.
Shrove Tuesday.....	" 14.
Ash Wednesday.....	" 15.
Quadragesima Sunday.....	" 19.
Mid Lent.....	Mar. 17.
Palm Sunday.....	" 25.
Good Friday.....	" 30.
Easter Sunday.....	Apr. 1.
Low Sunday.....	" 8.
Ascension Day.....	May 10.
Whit Sunday.....	" 20.
Trinity Sunday.....	" 27.
Corpus Christi.....	" 31.
Advent Sunday.....	Dec. 2.

EMBER DAYS.

February 22nd, May 23rd, September 19th and December 19th.

Year 5,649 of the Jewish era commences September 19th, 1888.

Year 1,306 of the Mahomedan era begins September, 19th, 1888.