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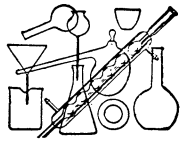
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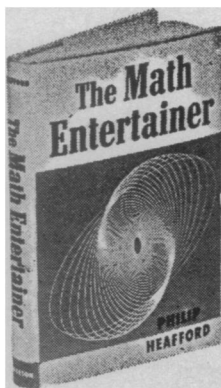
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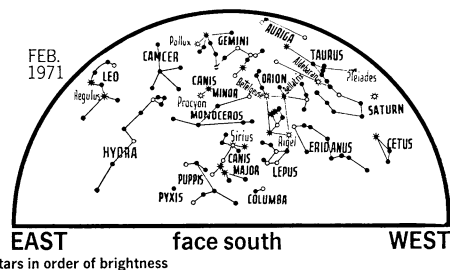
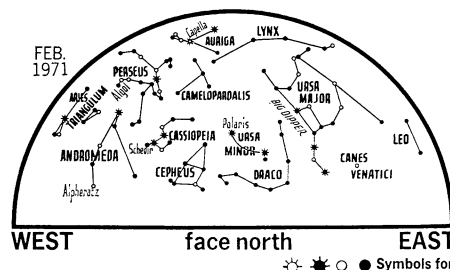
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ASTRONOMY



Total eclipse of the moon

by James Stokley

February brings two eclipses, but only one will be visible in the United States and Canada: a total eclipse of the moon on the night of Feb. 9. A partial eclipse of the sun, on Feb. 25, will be visible in Europe and Africa.

The accompanying maps show the sky as it appears about 10 p.m., local standard time, on the 1st. It looks about the same on the 15th at 9 p.m., and on the 28th at about 8 p.m.

During the eclipse the moon will be full, as it must be in order to enter the earth's shadow, which it does at a lunar eclipse. First contact between shadow and moon will come at 12:52 a.m. EST. A short time later the southeastern edge of the moon will be noticeably darkened, as the shadow creeps across the lunar disk. The moon will be entirely in the shadow at 2:03 a.m., which is the beginning of the total eclipse. This ends at 3:26 a.m., when the moon starts moving out of the shadow. It leaves the moon's western edge at 4:37 a.m.

An eclipse of the moon is not as important scientifically as a total eclipse of the sun, but it is interesting to watch. Ordinarily the moon does not disappear, even when completely immersed in the shadow. Generally it glows a dull, coppery red.

As the sun's rays pass close to earth they go through our atmosphere, which bends them downward a little. Thus they shine into the shadow and fall on the eclipsed moon. While penetrating the atmosphere some of the blue light is scattered and this is what gives the daytime sky its blue color. The light which reaches the moon is predominantly red, since it has lost some of the blue.

On February evenings there will be eight bright stars visible. One is Sirius in Canis Major, the brightest of all

stars (except the sun). Sirius is nearly six times as bright as Rigel.

Orion shines in the south. It contains two first-magnitude stars, Rigel and Betelgeuse. To the left is Canis Minor with Procyon its brightest star. Higher is Pollux, in Gemini.

Almost directly overhead is Auriga, where we find Capella. Below, toward the southwest, we come to Taurus with Aldebaran. The eighth of the bright stars is Regulus in Leo.

The planet Saturn shines prominently in the west, in Aries. It is the only planet visible at the time these maps represent.

A number of other planets appear in the east later in the February nighttime sky. Jupiter appears around 1 a.m.; Mars, considerably fainter, follows about an hour later. Then about 5 a.m. comes Venus, brighter than any other planet or star. □

CELESTIAL TIMETABLE

Feb.	EST	
2	9:31 a.m.	Moon in first quarter
	6:00 p.m.	Moon passes north of Saturn
5	3:40 a.m.	Algol at minimum brightness
8	12:30 a.m.	Algol at minimum
10	2:41 a.m.	Full moon; total lunar eclipse
	9:00 p.m.	Moon passes south of Regulus
12	8:00 p.m.	Moon farthest from earth, distance 252,300 miles
13	6:10 p.m.	Algol at minimum
18	7:14 a.m.	Moon in last quarter
	8:00 p.m.	Moon passes south of Jupiter
19	6:00 p.m.	Moon passes south of Mars
21	10:00 p.m.	Moon passes south of Venus
25	4:49 a.m.	New moon; partial eclipse of sun
	4:00 p.m.	Moon nearest earth; distance 222,000 miles