

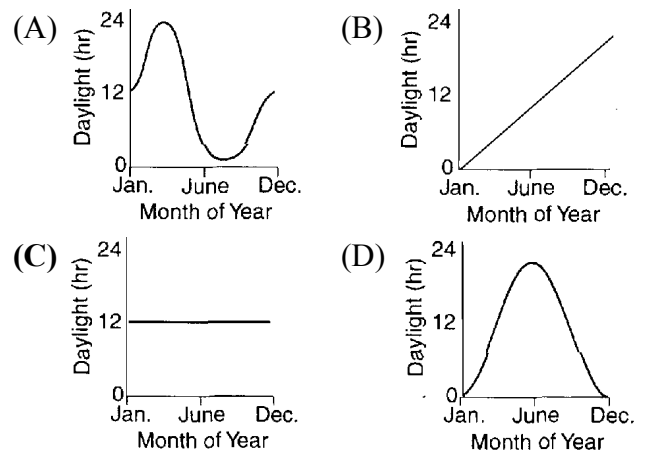
1. The table below shows the duration of insolation at different latitudes for three different days during the year.

Latitude	Day 1 Duration of Insolation (hours)	Day 2 Duration of Insolation (hours)	Day 3 Duration of Insolation (hours)
90° N	24	12	0
80° N	24	12	0
70° N	24	12	0
60° N	$18\frac{1}{2}$	12	$5\frac{1}{2}$
50° N	$16\frac{1}{4}$	12	$7\frac{3}{4}$
40° N	15	12	9
30° N	14	12	10
20° N	$13\frac{1}{4}$	12	$10\frac{3}{4}$
10° N	$12\frac{1}{2}$	12	$11\frac{1}{2}$
0°	12	12	12

Which dates are represented most correctly by Day 1, Day 2, and Day 3, respectively?

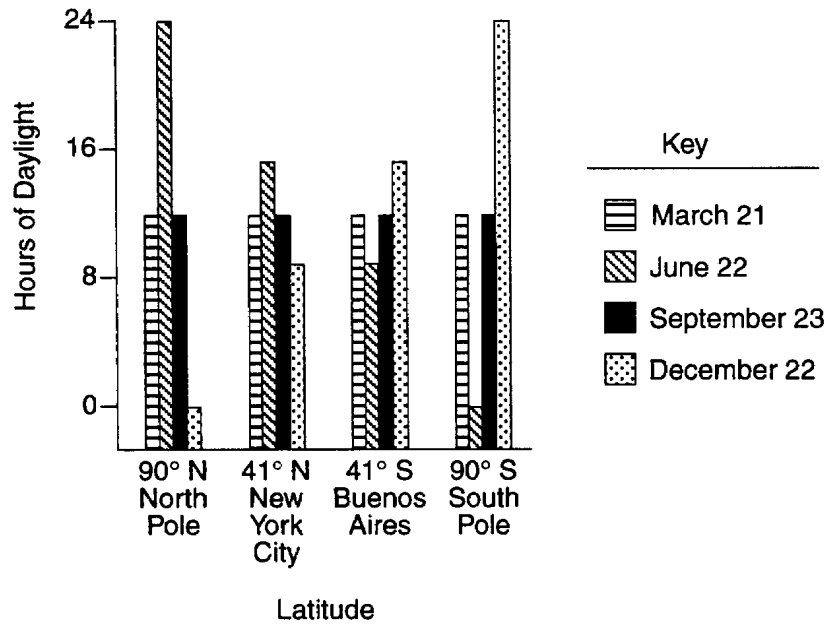
- (A) **June 21, September 22, December 21**
 (B) March 21, September 22, December 21
 (C) September 22, December 21, March 21
 (D) December 21, March 21, June 21

2. Which graph best represents the duration of insolation during the year at the Equator?



3. On June 21, some Earth locations have 24 hours of daylight. These locations are all between the latitudes of
- (A) 0° and $23\frac{1}{2}^\circ$ N (B) $23\frac{1}{2}^\circ$ N and 47° N
 (C) 47° N and $66\frac{1}{2}^\circ$ N (D) **$66\frac{1}{2}^\circ$ N and 90° N**
4. A student in Georgia observed that the noon Sun increased in altitude each day during the first part of a certain month and then decreased in altitude each day later in the month. During which month were these observations made?
- (A) September (B) February
 (C) November (D) **June**

Base your answer to the following question on the graph below which represents the duration of insolation at four different latitudes on Earth on four different dates.



5. On September 23, the duration of insolation at all four locations is 12 hours. The Sun is directly overhead at which latitude?

- (A) $23\frac{1}{2}^{\circ}$ N (B) 0°
 (C) $23\frac{1}{2}^{\circ}$ S (D) 90° N

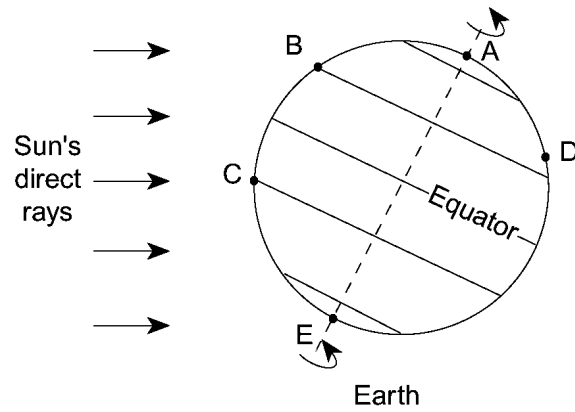
6. The table below shows the duration of insolation (hours of daylight) measured by four observers, *W*, *X*, *Y*, and *Z*, at four different Earth latitudes on both March 21 and June 21. There were clear skies at all four latitudes on both days.

Observer	Duration of Insolation March 21	Duration of Insolation June 21
<i>W</i>	12 hr	0 hr
<i>X</i>	12 hr	12 hr
<i>Y</i>	12 hr	18 hr
<i>Z</i>	12 hr	24 hr

Which observer was located at the Equator?

- (A) *X* (B) *Y* (C) *W* (D) *Z*

Base your answer to the following question on the diagram below, which shows the tilt of Earth on its axis in relation to the Sun on one particular day. Points *A* through *E* are locations on Earth's surface. Point *D* is located in Virginia. The dashed line represents Earth's axis.



7. On this day, which location has the greatest number of hours of daylight?

- (A) *E* (B) *B* (C) *C* (D) *D*

Answer Key
Duration Practice

1. A B C D
 2. A B C D
 3. A B C D
 4. A B C D
 5. A B C D
 6. A B C D
 7. A B C D
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