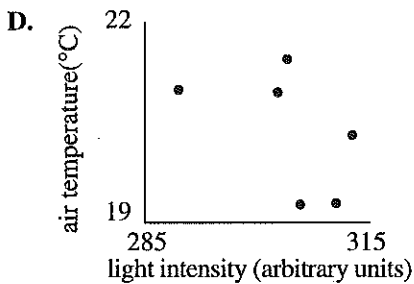
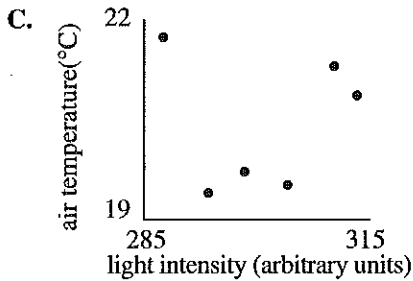
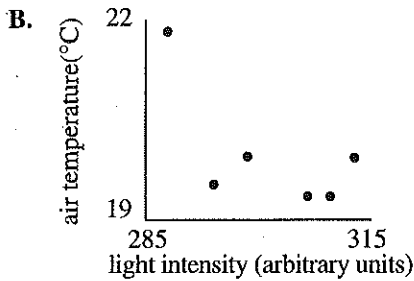
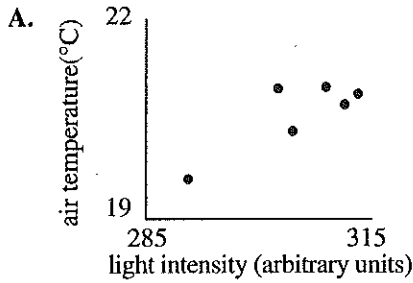




3. A plot of weekly average air temperature versus weekly average light intensity for Section 1 is best represented by which of the following graphs?



4. Which of the following statements best describes the changes in the weekly average air temperature in Section 1 during Weeks 1–6?

- F. The weekly average air temperature increased between Weeks 1 and 3 and decreased between Weeks 4 and 6.
- G. The weekly average air temperature decreased between Weeks 1 and 3 and increased between Weeks 4 and 6.
- H. The weekly average air temperature always increased.
- J. The weekly average air temperature always decreased.

5. Suppose the *efficiency of illumination* is defined as the intensity of light absorbed by the plants divided by the intensity of light provided to the plants. Based on the data, would one be justified in concluding that the efficiency of illumination was higher in Section 1 than in the other sections?

- A. Yes, because the illumination provided to the plants was highest in Section 1.
- B. Yes, because the amount of light not absorbed by the plants was highest in Section 1.
- C. No, because the amount of light absorbed by the plants was lowest in Section 1.
- D. No, because the information provided is insufficient to determine efficiency of illumination.

GO ON TO THE NEXT PAGE.



## SCIENCE TEST

35 Minutes—40 Questions

**DIRECTIONS:** There are seven passages in this test. Each passage is followed by several questions. After reading a passage, choose the best answer to each question and fill in the corresponding oval on your answer document. You may refer to the passages as often as necessary.

You are NOT permitted to use a calculator on this test.

## Passage I

A team of researchers constructed a greenhouse, consisting of 3 artificially lighted and heated sections, to be used to grow food during a long space voyage. The researchers found the weekly average light intensity, in arbitrary units, and the weekly average air temperature, in degrees Celsius ( $^{\circ}\text{C}$ ), in each section. The results for the first 6 weeks of their measurements are given in Table 1 (weekly average light intensity) and Table 2 (weekly average air temperature).

1. The highest weekly average air temperature recorded during the first 6 weeks of the study was:

A.  $18.47^{\circ}\text{C}$ .  
 B.  $21.13^{\circ}\text{C}$ .  
 C.  $120.7^{\circ}\text{C}$ .  
 D.  $314.9^{\circ}\text{C}$ .

Week	Weekly average light intensity (arbitrary units)		
	Section 1	Section 2	Section 3
1	289.3	84.4	120.7
2	305.5	79.2	80.8
3	313.4	76.2	77.0
4	314.9	73.6	69.4
5	304.5	68.8	74.6
6	311.1	68.5	68.4

Week	Weekly average air temperature ( $^{\circ}\text{C}$ )		
	Section 1	Section 2	Section 3
1	19.68	19.10	18.66
2	20.12	19.22	18.47
3	20.79	19.21	18.61
4	20.98	19.49	18.95
5	21.04	19.91	19.09
6	21.13	19.60	18.59

2. According to Table 2, weekly average air temperatures were recorded to the nearest:

F.  $0.01^{\circ}\text{C}$ .  
 G.  $0.1^{\circ}\text{C}$ .  
 H.  $1.0^{\circ}\text{C}$ .  
 J.  $10^{\circ}\text{C}$ .

GO ON TO THE NEXT PAGE.