

Passage V

In a study of human sleep cycles, subjects in 4 different age groups performed a brief mental task at a scheduled time. Immediately following the task, their oral temperatures were taken and then the time for each subject to fall asleep was measured.

The results were averaged for each group. Figure 1 shows how the average time to fall asleep for the 4 groups varied with the time of day that the task was performed. Figure 2 shows how the average oral temperature of 2 of the groups varied with the time of day that the task was performed.

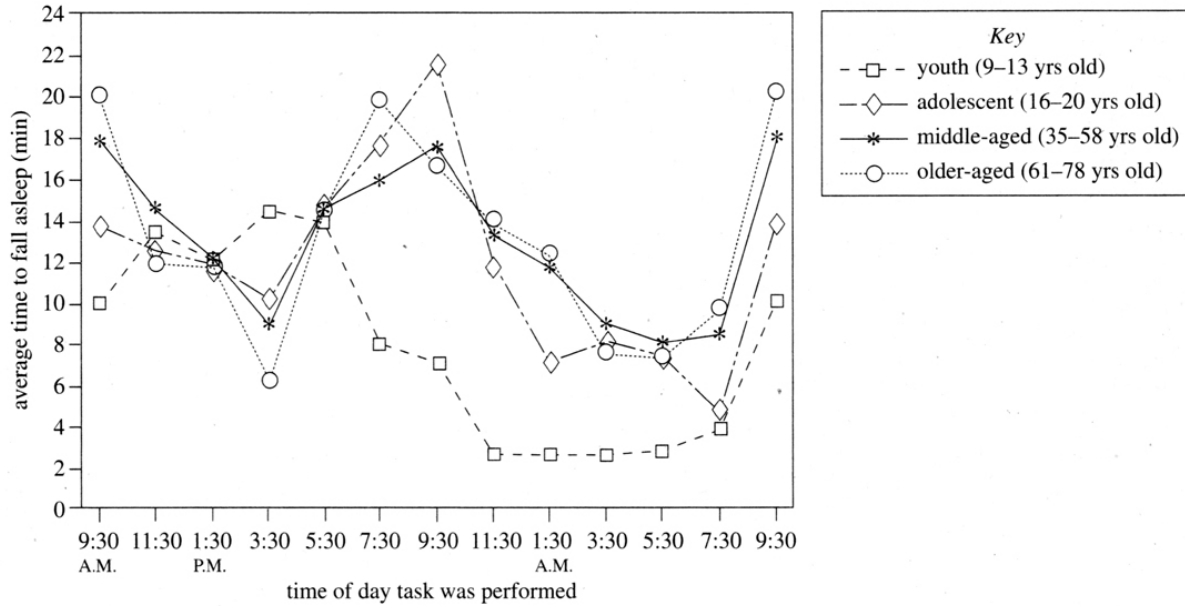


Figure 1

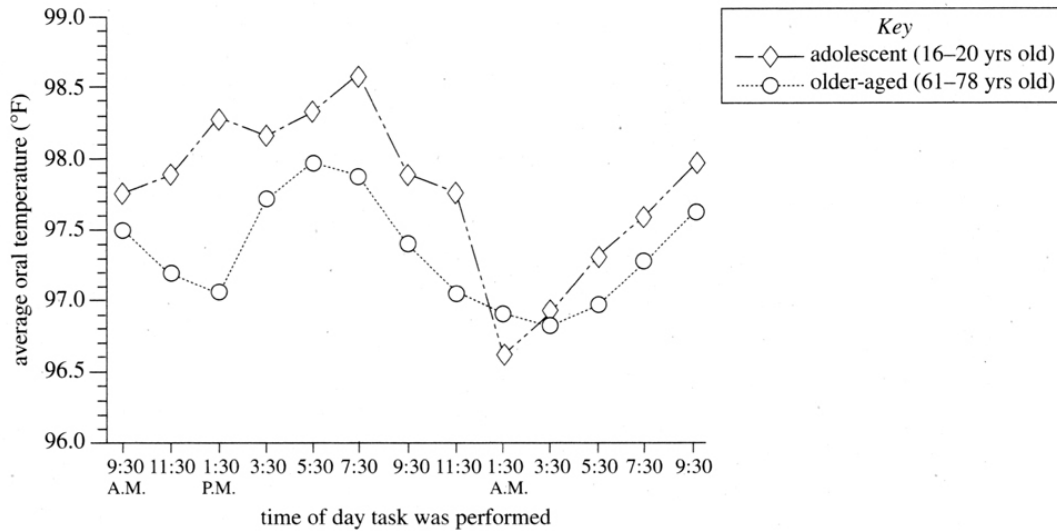


Figure 2

23. Based on Figure 1, at which of the following times was the average time to fall asleep most similar for the 4 age groups?
- A. 11:30 A.M.
 - B. 1:30 P.M.
 - C. 9:30 P.M.
 - D. 1:30 A.M.
24. A scientist claimed that the average oral temperature of the subjects in the older-aged group was always lower than that of the subjects in the adolescent group. The data for which of the following times shown in Figure 2 are *inconsistent* with this claim?
- F. 9:30 A.M.
 - G. 5:30 P.M.
 - H. 1:30 A.M.
 - J. 5:30 A.M.
25. According to Figure 1, for the adolescent group, the average time to fall asleep was greatest at which time of day?
- A. 1:30 P.M.
 - B. 5:30 P.M.
 - C. 9:30 P.M.
 - D. 1:30 A.M.
26. According to Figure 1, the average time to fall asleep at 3:30 A.M. was *least* for which age group?
- F. Youth
 - G. Adolescent
 - H. Middle-aged
 - J. Older-aged
27. Suppose that there were 4 subjects in each age group, and that in 1 age group the time to fall asleep at 3:30 P.M. for the 4 subjects was 14 min, 11 min, 16 min, and 17 min. Based on Figure 1, these 4 subjects were most likely:
- A. 9–13 yrs old.
 - B. 16–20 yrs old.
 - C. 35–58 yrs old.
 - D. 61–78 yrs old.