

### Television line-up

A television series must be scheduled once a week for a nine-week period. Each of the eight episodes—A, B, C, D, E, F, G, and H—must be scheduled at least once, and each episode appears on the same day of the week. The following conditions govern the scheduling of the episodes:

- A is separated from B by no more than two other episodes.
- At least one other episode must separate C and D, and C must precede D.
- G must be scheduled for the week after D.
- C is scheduled for some week after A is scheduled.
- H is scheduled for the second and ninth weeks.

1. Which one of the following is an acceptable schedule of episodes, in order from the first week to the ninth week?

- (A) A, H, B, C, D, G, E, F, H
- (B) B, H, C, A, D, G, F, E, H
- (C) B, H, C, E, D, G, A, F, H
- (D) A, H, C, B, E, D, G, F, H
- (E) B, H, A, C, F, D, E, G, H

2. The greatest number of episodes that can separate episodes G and B is

- (A) three
- (B) four
- (C) five
- (D) six
- (E) seven

3. If episode B is shown in the first week and episode C is shown in the fifth week, how many possible schedules could there be for the nine episodes?

- (A) two
- (B) three
- (C) four
- (D) five
- (E) six

4. If episode F is shown in the seventh week, then which one of the following must be true?

- (A) Episode A is shown in the third week.
- (B) Episode B is shown in the first week.
- (C) Episode C is shown in the third week.
- (D) Episode E is shown in the fourth week.
- (E) Episode G is shown in the fifth week.

5. If episode G is shown in the eighth week, then which one of the following could be true?

- (A) Episode E is shown in the third week, and episode F is shown in the fourth week.
- (B) Episode E is shown in the fourth week, and episode B is shown in the fifth week.
- (C) Episode C is shown in the third week, and episode E is shown in the fifth week.
- (D) Episode B is shown in the first week, and episode D is shown in the sixth week.
- (E) Episode F is shown in the fifth week, and episode D is shown in the sixth week.