

UNIT 20 EXERCISES 6-10

LOGIC

- 2016B 6. All three vertices of $\triangle ABC$ lie on the parabola defined by $y = x^2$, with A at the origin and \overline{BC} parallel to the x -axis. The area of the triangle is 64. What is the length BC ?
- (A) 4 (B) 6 (C) 8 (D) 10 (E) 16
- 1999 10. A sealed envelope contains a card with a single digit on it. Three of the following statements are true, and the other is false.
- I. The digit is 1.
 - II. The digit is not 2.
 - III. The digit is 3.
 - IV. The digit is not 4.
- Which one of the following must necessarily be correct?
- (A) I is true. (B) I is false. (C) II is true. (D) III is true.
(E) IV is false.

- 2016A** 10. Five friends sat in a movie theater in a row containing 5 seats, numbered 1 to 5 from left to right. (The directions “left” and “right” are from the point of view of the people as they sit in the seats.) During the movie Ada went to the lobby to get some popcorn. When she returned, she found that Bea had moved two seats to the right, Ceci had moved one seat to the left, and Dee and Edie had switched seats, leaving an end seat for Ada. In which seat had Ada been sitting before she got up?
- (A) 1 (B) 2 (C) 3 (D) 4 (E) 5