1. The graph of the equation $y = 4x + 7$ most closely resembles which of the following?

(A)

(B)

(C)

(D)

(E)
2. The function \(f\) is defined by \(f(x) = 3 - x^2\). The value of \(f(5)\) is

(A) -22  
(B) -4  
(C) 4  
(D) 22  
(E) none of the above is correct

3. The graph of the function \(\left(\frac{1}{2}\right)^x\) most closely resembles which of the following?

(A) ![Graph A]  
(B) ![Graph B]  
(C) ![Graph C]  
(D) ![Graph D]  
(E) ![Graph E]
4. If \( x \) and \( y \) are positive numbers, then \( \ln \left( \frac{y}{x} \right) = \) equals

(a) \( \frac{\ln y}{\ln x} \)

(b) \( \ln x - \ln y \)

(c) \( \frac{\ln x}{\ln y} \)

(d) \( \ln y - \ln x \)

(e) none of these is correct

5. In scientific notation, 1,249 is written as

(a) \( 0.1249 \times 10^4 \)

(b) \( 1.249 \times 10^3 \)

(c) \( 12.49 \times 10^2 \)

(d) \( 124.9 \times 10 \)

(e) none of these is correct
6. The graph of \( y = x^2 - 2x - 3 \) most closely resembles which of the following?

(A)

(B)

(C)

(D)

(E)
Correct Answers

1. a
2. a
3. c
4. d
5. b
6. a