EXERCISE 1

Whole Numbers

DIRECTIONS: Choose the correct answer to each of the following items. Answers are on page 920.

1. Subtracting 1 from which digit in the number 12,345 will decrease the value of the number by 1,000?
   A. 1 C. 3 E. 5
   B. 2 D. 4

2. Adding 1 to each digit of the number 222,222 will increase the value of the number by how much?
   A. 333,333 C. 100,000 E. 1
   B. 111,111 D. 10

3. $(1 \cdot 1) + (1 \cdot 10) + (1 \cdot 100) + (1 \cdot 1{,}000) + (1 \cdot 10{,}000) = ?$
   A. 5 C. 11,111 E. 1,111,100
   B. 5,000 D. 111,110

4. $(2 \cdot 1{,}000) + (3 \cdot 100) + (1 \cdot 10{,}000) + (2 \cdot 10) + 1 = ?$
   A. 11,223 C. 12,321 E. 32,121
   B. 12,132 D. 23,121

5. $(2 \cdot 10{,}000) + (8 \cdot 1{,}000) + (4 \cdot 10) = ?$
   A. 284 C. 2,084 E. 28,040
   B. 482 D. 2,840

6. What is the sum of 5, 7, and 8?
   A. 12 C. 20 E. 28
   B. 15 D. 25

7. What is the difference between 8 and 3?
   A. 24 C. 8 E. 3
   B. 11 D. 5

8. What is the product of 2 and 8?
   A. 4 C. 10 E. 24
   B. 6 D. 16

9. What is the product of 12 and 10?
   A. 2 C. 120 E. 300
   B. 22 D. 240

10. What is the difference between (5 + 2) and (3 • 2)?
    A. 0 C. 3 E. 14
    B. 1 D. 10

11. What is the sum of the product of 2 and 3 and the product of 3 and 4?
    A. 6 C. 18 E. 72
    B. 12 D. 35

24. What is the largest factor of both 6 and 9?

A. 1 C. 6 E. 12
B. 3 D. 9

25. What is the largest factor of 18, 24, and 36?

A. 6 C. 12 E. 18
B. 9 D. 15

26. What is the smallest multiple of both 5 and 2?

A. 7 C. 20 E. 40
B. 10 D. 30

27. Which of the following is (are) even?

I. 12
II. 36
III. 101

A. I only D. I and III only
B. II only E. I, II, and III
C. I and II only

28. Which of the following is (are) even?

I. 333,332 • 333,333
II. 999,999 + 101,101
III. 22,221 • 44,441

A. I only D. I and III only
B. II only E. I, II, and III
C. I and II only

29. For any whole number n, which of the following MUST be odd?

I. $3(n + 1)$
II. $3n + 2n$
III. $2n - 1$

A. I only D. I and II only
B. II only E. I, II, and III
C. III only

30. If 15 is the fifth number in a series of five consecutive odd numbers, what is the third number in the series?

A. 5 C. 9 E. 13
B. 7 D. 11

31. If $A = 2^2(3)(7) = 84$, how many positive factors, including 1 and 84, does A have?

A. 12 C. 36 E. 84
B. 24 D. 42

32. If $ab(c - d + 2e) = -6$, which of the numbers a, b, c, d, and e CANNOT be 0?

A. a and b only D. d only
B. b only E. c and d only
C. c only