45. The ratio of boys to girls in a class is 2:3. If there are 18 girls in the class, how many boys are there?

a. 6   c. 12
b. 10   d. 27

46. Solve $\begin{cases} 2x + 3y = 4 \\ 3x - 3y = -9 \end{cases}$.

a. $(2, 0)$ c. $(1, -2)$
b. $(-1, 2)$ d. $(-5, 2)$

47. Use the zero product property to solve the equation $(x + 3)(x - 2) = 14$.

a. The solutions are 5 and -4.   c. The solutions are -5 and 4.
b. The solutions are -3 and 2.   d. The solutions are 3 and -2.

48. Divide: $(18x^3 + 9x^2) \div (3x)$

a. $6x^2 + 3$ c. $3x^2 + 3x$
b. $6x^2 + 3x$ d. $6x^3 + 3x$

49. Which of the following is the solution to this inequality?

$$3(5 + 2n) \geq 7 + 10n$$

a. $n \geq 2$ c. $n \leq 2$
b. $n \geq -2$ d. $n \leq -2$

50. Multiply $(x + 7)(x - 7)$.

a. $x^2 - 49$ c. $2x - 14$
b. $x^2 + 14x - 49$ d. $x^2 + 49$

51. U is the set of natural numbers less than 8. G is the set of even integers less than 10. Which is the complement of set G in universe U?
a. $\{1, 3, 5, 7\}$ c. $\{2, 4, 6\}$
b. G d. $\{1, 3, 5, 7, 8\}$

45. ANS: C
46. ANS: B
47. ANS: C
48. ANS: B
49. ANS: C
50. ANS: A
51. ANS: A