Algebra II

Unit 0B Worksheet

Use factoring to solve the following quadratic equations.

1. $x^2 + 7x + 12 = 0$

2. $x^2 + 9x - 36 = 0$

3. $x^2 - x - 90 = 0$

4. $x^2 - 14x + 40 = 0$

5. $x^2 - 2x = 48$

6. $x^2 = 8x - 12$

7. $3x^2 + 14x + 8 = 0$

8. $2x^2 - x - 10 = 0$

9. $12x^2 - 8x + 1 = 0$

10. $9a^2 - 4 = 0$

11. Which of the following is the correct factorization of $3c^2 + 4c - 4$?

a) $(3c - 1)(c + 4)$ b) $(3c + 1)(c - 4)$ c) $(3c + 2)(c - 2)$ d) $(3c - 2)(c + 2)$

12. Which of the following does not have $(x - 1)$as a factor?

a) $x^2 - 1$ b) $x^2 + 9x - 10$ c) $4x^2 + 3x - 1$ d) $3x^2 - x - 2$

13. What are the solutions to the equation $5x^2 - 3x + 3 = -2x^2 + 3$?

a) $\left\{0, \frac{7}{3}\right\}$ b) $\left\{\frac{3}{7}, 1\right\}$ c) $\left\{0, \frac{3}{7}\right\}$ d) {0,1}

14. What are the zeros of the function $y = x^2 - 9x + 20$?

a) 4 and 5 b) -4 and 5 c) 4 and -5 d) -4 and -5