

Algebra 2
Worksheet 3.1-3.4 B

NAME _____

Solve the equation by Graphing.

1. $f(x) = x^2 + x - 12$

2. $y = 2x^2 - 4x - 30$

Solve the equation using Square Roots.

3. $x^2 + 18 = 43$

4. $(x + 2)^2 - 13 = 15$

Solve the equation by Factoring.

5. $0 = x^2 + 5x - 24$

6. $y = 2x^2 + 7x - 4$

Find the square root of each.

7. $\sqrt{-64}$

8. $\sqrt{-54}$

9. $2\sqrt{-24}$

Simplify each expression.

10. $(5 - 4i) + (6 - 3i)$

11. $(-2 + 5i) - (8 - 4i)$

12. $(3 - 2i)(7 + 4i)$

13. $(1 + 6i)(3 - 2i)$

14. $(3 + 2i)(3 - 2i)$

15. $(2 - 5i)^2$

Find the zeros of the function.

16. $0 = x^2 + 32$

17. $x^2 - 17 = -62$

18. $f(x) = 2x^2 + 40$

Solve the equation by using the Quadratic Formula.

19. $x^2 + 3x - 4 = 0$

21. $2x^2 - 4x = 3$

22. $x^2 + 5 = -4x$