

Quadratic Functions Review

Factoring to Solve Equations 2

Factor by using the distributive property.

1. $64 - 40ab$

2. $30x^3y + 35x^2y^2$

Factor by grouping.

3. $x^2 + 4x + 2x + 8$

4. $48c + 18cd - 8 - 3d$

Factor if needed, then solve the equation.

5. $(y - 3)(y + 2) = 0$

6. $(4y + 8)(3y - 4) = 0$

7. $9x^2 = 27x$

8. $d^2 - 16d + 63 = 0$

9. $x^2 - 6x - 55 = 0$

10. $j^2 - 9j - 10 = 0$

11. $h^2 - 17h = -60$

12. $y^2 - 84 = 5y$

13. $17s + s^2 = -52$

Factor each equation using difference of squares, then solve the equation.

14. $32 - 8y^2 = 0$

15. $9d^2 - 32 = 0$

16. $100b^3 - 36b = 0$

17. $64p^2 = 9$

18. $s^2 - \frac{64}{121} = 0$

19. $27h^3 = 48h$

Find the solution to each word problem below.

20. A landscaper is making a triangular flower bed. The height must be two feet less than the base. If the base of the flower bed is 16 feet, what is its area?

21. Janeel wants to scan a 10-by-12 inch photograph and reduce its area to one-eighth its original area. What will be the new dimensions of the picture?