

P. 597 # 23-40 all

SOLVING EQUATIONS Solve the equation.

23. $2x^2 - 3x - 35 = 0$

24. $3w^2 + 22w + 7 = 0$

25. $4s^2 + 11s - 3 = 0$

26. $7a^2 + 2a = 5$

27. $8t^2 - 2t = 3$

28. $6m^2 - 5m = 14$

29. $b(20b - 3) - 2 = 0$

30. $4(3y^2 - 7y + 4) = 1$

31. $p(3p + 14) = 5$

32. $4n^2 - 2n - 90 = 0$

33. $10c^2 - 14c + 4 = 0$

34. $-16k^2 + 8k + 24 = 0$

35. $6r^2 - 15r = 99$

36. $56z^2 + 2 = 22z$

37. $30x^2 + 25x = 20$


ERROR ANALYSIS Describe and correct the error in solving the equation.

38.

$$\begin{aligned}
 5x^2 + x &= 4 \\
 x(5x + 1) &= 4 \\
 x = 4 \text{ or } 5x + 1 &= 4 \\
 x = 4 \text{ or } x &= \frac{3}{5}
 \end{aligned}$$

39.

$$\begin{aligned}
 12x^2 + 5x - 2 &= 0 \\
 (3x - 1)(4x + 2) &= 0 \\
 3x - 1 = 0 \text{ or } 4x + 2 &= 0 \\
 x = \frac{1}{3} \text{ or } x &= -\frac{1}{2}
 \end{aligned}$$

40.  **GEOMETRY** The length of a rectangle is 7 inches more than 5 times its width. The area of the rectangle is 6 square inches. What is the width?