Solving Quadratic Equations (H)

Solve each equation for x

1. $42x^2 + 13x = -1$

2. $24x^2 - 52x + 1 = -27$

3. $21x^2 + 34x - 10 = 25$

4. $32x^2 - 24x - 43 = 13$

5. $40x^2 + 53x + 7 = -2$

6. $20x^2 + 36x - 7 = 1$

7. $6x^2 + 17x - 11 = 3$

8. $49x^2 - 1 = 0$

9. $8x^2 - 18x - 28 = 7$

10. $4x^2 - 38x + 33 = -15$

11. $14x^2 - 37x + 5 = 0$

12. $5x^2 - 33x + 5 = -13$

Solving Quadratic Equations (H) Answers

Solve each equation for x

1. $42x^2 + 13x = -1$
   $42x^2 + 13x + 1 = 0$
   $(7x + 1)(6x + 1) = 0$
   $x = -1/7,\ -1/6$

2. $24x^2 - 52x + 1 = -27$
   $24x^2 - 52x + 28 = 0$
   $(4x - 4)(6x - 7) = 0$
   $x = 1,\ 1\ 1/6$

3. $21x^2 + 34x - 10 = 25$
   $21x^2 + 34x - 35 = 0$
   $(7x - 5)(3x + 7) = 0$
   $x = 5/7,\ -2\ 1/3$

4. $32x^2 - 24x - 43 = 13$
   $32x^2 - 24x - 56 = 0$
   $(8x + 8)(4x - 7) = 0$
   $x = -1,\ 1\ 3/4$

5. $40x^2 + 53x + 7 = -2$
   $40x^2 + 53x + 9 = 0$
   $(8x + 9)(5x + 1) = 0$
   $x = -1\ 1/8,\ -1/5$

6. $20x^2 + 36x - 7 = 1$
   $20x^2 + 36x - 8 = 0$
   $(4x + 8)(5x - 1) = 0$
   $x = -2,\ 1/5$

7. $6x^2 + 17x - 11 = 3$
   $6x^2 + 17x - 14 = 0$
   $(2x + 7)(3x - 2) = 0$
   $x = -3\ 1/2,\ 2/3$

8. $49x^2 - 1 = 0$
   $49x^2 - 1 = 0$
   $(7x + 1)(7x - 1) = 0$
   $x = -1/7,\ 1/7$

9. $8x^2 - 18x - 28 = 7$
   $8x^2 - 18x - 35 = 0$
   $(2x - 7)(4x + 5) = 0$
   $x = 3\ 1/2,\ -1\ 1/4$

10. $4x^2 - 38x + 33 = -15$
    $4x^2 - 38x + 48 = 0$
    $(4x - 6)(x - 8) = 0$
    $x = 1\ 1/2,\ 8$

11. $14x^2 - 37x + 5 = 0$
    $14x^2 - 37x + 5 = 0$
    $(2x - 5)(7x - 1) = 0$
    $x = 2\ 1/2,\ 1/7$

12. $5x^2 - 33x + 5 = -13$
    $5x^2 - 33x + 18 = 0$
    $(5x - 3)(x - 6) = 0$
    $x = 3/5,\ 6$