Solving Quadratic Equations (F)

Solve each equation for x

1. $10x^2 - 4x - 4 = 2$

2. $18x^2 - 36x - 34 = 20$

3. $56x^2 - 33x - 8 = 6$

4. $30x^2 + 9x - 1 = 2$

5. $20x^2 - 55x + 30 = -5$

6. $9x^2 + 27x + 9 = -5$

7. $56x^2 - 51x - 13 = 14$

8. $32x^2 + 44x + 1 = -11$

9. $49x^2 - 28x + 2 = -1$

10. $10x^2 - 27x + 13 = -5$

11. $56x^2 - 66x + 7 = -11$

12. $16x^2 - 24x - 35 = 5$

Solving Quadratic Equations (F) Answers

Solve each equation for x

1. $10x^2 - 4x - 4 = 2$
   $10x^2 - 4x - 6 = 0$
   $(2x - 2)(5x + 3) = 0$
   $x = 1\ ,\ -3/5$

2. $18x^2 - 36x - 34 = 20$
   $18x^2 - 36x - 54 = 0$
   $(6x + 6)(3x - 9) = 0$
   $x = -1\ ,\ 3$

3. $56x^2 - 33x - 8 = 6$
   $56x^2 - 33x - 14 = 0$
   $(7x + 2)(8x - 7) = 0$
   $x = -2/7,\ 7/8$

4. $30x^2 + 9x - 1 = 2$
   $30x^2 + 9x - 3 = 0$
   $(5x - 1)(6x + 3) = 0$
   $x = 1/5,\ -1/2$

5. $20x^2 - 55x + 30 = -5$
   $20x^2 - 55x + 35 = 0$
   $(4x - 7)(5x - 5) = 0$
   $x = 1\ 3/4,\ 1$

6. $9x^2 + 27x + 9 = -5$
   $9x^2 + 27x + 14 = 0$
   $(3x + 7)(3x + 2) = 0$
   $x = -2\ 1/3,\ -2/3$

7. $56x^2 - 51x - 13 = 14$
   $56x^2 - 51x - 27 = 0$
   $(7x - 9)(8x + 3) = 0$
   $x = 1\ 2/7,\ -3/8$

8. $32x^2 + 44x + 1 = -11$
   $32x^2 + 44x + 12 = 0$
   $(4x + 4)(8x + 3) = 0$
   $x = -1\ ,\ -3/8$

9. $49x^2 - 28x + 2 = -1$
   $49x^2 - 28x + 3 = 0$
   $(7x - 1)(7x - 3) = 0$
   $x = 1/7,\ 3/7$

10. $10x^2 - 27x + 13 = -5$
    $10x^2 - 27x + 18 = 0$
    $(2x - 3)(5x - 6) = 0$
    $x = 1\ 1/2,\ 1\ 1/5$

11. $56x^2 - 66x + 7 = -11$
    $56x^2 - 66x + 18 = 0$
    $(7x - 3)(8x - 6) = 0$
    $x = 3/7,\ 3/4$

12. $16x^2 - 24x - 35 = 5$
    $16x^2 - 24x - 40 = 0$
    $(8x + 8)(2x - 5) = 0$
    $x = -1\ ,\ 2\ 1/2$