Solving Quadratic Equations (A)

Solve each equation for x

1. $2x^2 + 13x - 6 = 1$

2. $x^2 + 2x - 39 = 9$

3. $2x^2 - 15x + 3 = -4$

4. $2x^2 + 21x + 23 = -26$

5. $x^2 - 16x + 42 = -22$

6. $2x^2 - 4x - 5 = 1$

7. $x^2 + 9x + 12 = -2$

8. $4x^2 + 6x - 20 = 8$

9. $4x^2 + 2x - 6 = 24$

10. $2x^2 + 3x - 21 = 6$

11. $x^2 - 6x + 5 = -3$

12. $2x^2 - 9x - 17 = 64$

Solving Quadratic Equations (A) Answers

Solve each equation for x

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

2. $x^2 + 2x - 39 = 9$
   $x^2 + 2x - 48 = 0$
   $(x + 8)(x - 6) = 0$
   $x = -8 , \ 6$

3. $2x^2 - 15x + 3 = -4$
   $2x^2 - 15x + 7 = 0$
   $(2x - 1)(x - 7) = 0$
   $x = 1/2, \ 7$

4. $2x^2 + 21x + 23 = -26$
   $2x^2 + 21x + 49 = 0$
   $(x + 7)(2x + 7) = 0$
   $x = -7 , \ -3\ 1/2$

5. $x^2 - 16x + 42 = -22$
   $x^2 - 16x + 64 = 0$
   $(x - 8)(x - 8) = 0$
   $x = 8$

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

7. $x^2 + 9x + 12 = -2$
   $x^2 + 9x + 14 = 0$
   $(x + 7)(x + 2) = 0$
   $x = -7 , \ -2$

8. $4x^2 + 6x - 20 = 8$
   $4x^2 + 6x - 28 = 0$
   $(2x + 7)(2x - 4) = 0$
   $x = -3\ 1/2, \ 2$

9. $4x^2 + 2x - 6 = 24$
   $4x^2 + 2x - 30 = 0$
   $(2x + 6)(2x - 5) = 0$
   $x = -3 , \ 2\ 1/2$

10. $2x^2 + 3x - 21 = 6$
    $2x^2 + 3x - 27 = 0$
    $(x - 3)(2x + 9) = 0$
    $x = 3 , \ -4\ 1/2$

11. $x^2 - 6x + 5 = -3$
    $x^2 - 6x + 8 = 0$
    $(x - 2)(x - 4) = 0$
    $x = 2 , \ 4$

12. $2x^2 - 9x - 17 = 64$
    $2x^2 - 9x - 81 = 0$
    $(2x + 9)(x - 9) = 0$
    $x = -4\ 1/2, \ 9$