Solving Quadratic Equations (A)

Solve each equation for x

1. $-24x^2 - 52x - 25 = 3$

2. $30x^2 - 79x + 26 = -19$

3. $-36x^2 + 84x - 16 = 29$

4. $-30x^2 + 27x + 27 = 0$

5. $8x^2 + 22x - 5 = 1$

6. $40x^2 - 32x - 63 = 9$

7. $-7x^2 - 18x + 9 = 0$

8. $8x^2 + 17x - 6 = 15$

9. $6x^2 - 19x - 15 = 21$

10. $9x^2 + 37x - 15 = 25$

11. $54x^2 + 93x + 33 = -7$

12. $-36x^2 - 17x - 1 = 1$

Solving Quadratic Equations (A) Answers

Solve each equation for x

1. $-24x^2 - 52x - 25 = 3$
$-24x^2 - 52x - 28 = 0$
$-(4x + 4)(6x + 7) = 0$
$x = -1\ ,\ -1\ 1/6$

2. $30x^2 - 79x + 26 = -19$
$30x^2 - 79x + 45 = 0$
$(5x - 9)(6x - 5) = 0$
$x = 1\ 4/5,\ \ 5/6$

3. $-36x^2 + 84x - 16 = 29$
$-36x^2 + 84x - 45 = 0$
$(6x - 9)(6x - 5) = 0$
$x = 1\ 1/2,\ \ 5/6$

4. $-30x^2 + 27x + 27 = 0$
$-30x^2 + 27x + 27 = 0$
$-(5x + 3)(6x - 9) = 0$
$x = -\ 3/5,\ \ 1\ 1/2$

5. $8x^2 + 22x - 5 = 1$
$8x^2 + 22x - 6 = 0$
$(2x + 6)(4x - 1) = 0$
$x = -3\ ,\ \ 1/4$

6. $40x^2 - 32x - 63 = 9$
$40x^2 - 32x - 72 = 0$
$(5x - 9)(8x + 8) = 0$
$x = 1\ 4/5,\ \ -1$

7. $-7x^2 - 18x + 9 = 0$
$-7x^2 - 18x + 9 = 0$
$-(7x - 3)(x + 3) = 0$
$x = \ 3/7,\ \ -3$

8. $8x^2 + 17x - 6 = 15$
$8x^2 + 17x - 21 = 0$
$(x + 3)(8x - 7) = 0$
$x = -3\ ,\ \ 7/8$

9. $6x^2 - 19x - 15 = 21$
$6x^2 - 19x - 36 = 0$
$(3x + 4)(2x - 9) = 0$
$x = -1\ 1/3,\ \ 4\ 1/2$

10. $9x^2 + 37x - 15 = 25$
$9x^2 + 37x - 40 = 0$
$(9x - 8)(x + 5) = 0$
$x = \ 8/9,\ \ -5$

11. $54x^2 + 93x + 33 = -7$
$54x^2 + 93x + 40 = 0$
$(6x + 5)(9x + 8) = 0$
$x = -\ 5/6,\ \ -\ 8/9$

12. $-36x^2 - 17x - 1 = 1$
$-36x^2 - 17x - 2 = 0$
$-(4x + 1)(9x + 2) = 0$
$x = -\ 1/4,\ \ -\ 2/9$