Solving Quadratic Equations (I)

Solve each equation for x

1. $-27x^2 - 60x - 13 = 19$

2. $-2x^2 + 17x = -9$

3. $20x^2 + 8x - 4 = 8$

4. $32x^2 - 44x - 2 = 4$

5. $-x^2 - 3x - 1 = 1$

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

7. $-56x^2 - 48x + 8 = 0$

8. $48x^2 + 10x - 6 = 19$

9. $-28x^2 - 26x - 3 = 3$

10. $6x^2 - 21x + 9 = 0$

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

12. $2x^2 + 16x - 14 = 4$

Solving Quadratic Equations (I) Answers

Solve each equation for x

1. $-27x^2 - 60x - 13 = 19$
$-27x^2 - 60x - 32 = 0$
$-(3x + 4)(9x + 8) = 0$
$x = -1\ 1/3,\ -8/9$

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

3. $20x^2 + 8x - 4 = 8$
$20x^2 + 8x - 12 = 0$
$(4x + 4)(5x - 3) = 0$
$x = -1\ ,\ 3/5$

4. $32x^2 - 44x - 2 = 4$
$32x^2 - 44x - 6 = 0$
$(4x - 6)(8x + 1) = 0$
$x = 1\ 1/2,\ -1/8$

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

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

7. $-56x^2 - 48x + 8 = 0$
$-56x^2 - 48x + 8 = 0$
$-(7x - 1)(8x + 8) = 0$
$x = 1/7,\ -1$

8. $48x^2 + 10x - 6 = 19$
$48x^2 + 10x - 25 = 0$
$(6x + 5)(8x - 5) = 0$
$x = -5/6,\ 5/8$

9. $-28x^2 - 26x - 3 = 3$
$-28x^2 - 26x - 6 = 0$
$-(4x + 2)(7x + 3) = 0$
$x = -1/2,\ -3/7$

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

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

12. $2x^2 + 16x - 14 = 4$
$2x^2 + 16x - 18 = 0$
$(x + 9)(2x - 2) = 0$
$x = -9\ ,\ 1$