

Quadratic Equations

1. Solve the following equations for the unknown variable x .

(i) $x^2 + 2x + 1 = 0$

(ii) $2x^2 + 5x + 2 = 0$

(iii) $x^2 - x = 0$

(iv) $x^2 - 1 = 0$

(v) $2x^2 + 10x - 28 = 0$

(vi) $x^2 - 6x - 7 = 0$

(vii) $4x^2 - 9 = 0$

(viii) $6x^2 - 8x = 0$

(ix) $2x^2 - 7x + 3 = 0$

(x) $x^2 + 3x + 2 = 0$

(xi) $2x^2 - 4x = 0$

(xii) $x^2 - y^2 = 0$

(xiii) $x^2 - 4 = 0$

(xiv) $x^2 + 12x - 13 = 0$

(xv) $3x^2 + 7x + 4 = 0$

(xvi) $x^2 + 4x + 4 = 0$

(xvii) $7x^2 - 2x = 0$

(xviii) $3x^2 + 5x - 2 = 0$

(xix) $x^2 + 5x + 4 = 0$

(xx) $9x^2 - 4y^2 = 0$

(xxi) $6x^2 - 5x - 4 = 0$

(xxii) $\frac{5x^2}{2} - 3x = 0$

(xxiii) $3x^2 + 5x - 2 = 0$

(xxiv) $x^2 + 8 = -6x$

(xxv) $28x^2 - 42x = 0$

(xxvi) $4x^2 - 15x - 4 = 0$

(xxvii) $x^2 + 11x + 10 = 0$

(xxviii) $12x^2 - 4x = 0$

(xxix) $3x^2 - 12x - 36 = 0$

(xxx) $16a^2 - 25b^2 = 0$

(xxxi) $x^2 - 2x - 24 = 0$

(xxxii) $x^3 - 4x = 0$

(xxxiii) $x = 4/3, x = -1/2$

(xxxiv) $x^2 + 3x = 28$

(xxxv) $-(13x^2 - 35x - 12) = 0$

(xxxvi) $x^2 - 10x + 9 = 0$

(xxxvii) $12x^2 + 2 = 10x$

(xxxviii) $4x^2 - 9 = 0$

(xxxix) $8x^2 + 26x - 7 = 0$

(xli) $x^2 + x - 110 = 0$

(xli) $6x^2 - 5x = 4$

2. Solve the following quadratic equations expressing your answer to the nearest two decimal places.

(i) $x^2 - 4x - 8 = 0$

(ii) $2x^2 + 11x + 6$

(iii) $2x^2 - 3x - 11 = 0$

(iv) $3x^2 - 10x + 5 = 0$

(v) $2x^2 + x - 1/2 = 0$