Solving quadratic equations by factorising (Part 2)

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Name:

Factorising quadratics with coefficients of x^2 greater than 1

Solve the following equations by factorising:

a) $2x^2 + 14x + 12 = 0$

x = -6 or x = -1

b) $5x^2 - 15x - 50 = 0$

x = -2 or x = 5

c) $3x^2 - 30x + 72 = 0$

x = 4 or x = 6

d) $2x^2 + 18x + 28 = 0$

x = -7 or x = -2

e) $4x^2 - 16x - 180 = 0$

x = -5 or x = 9

g) $2x^2 + 5x + 3 = 0$

x = -3/2 or x = -1

h) $2x^2 + 7x + 6 = 0$

x = -3/2 or x = -2

i) $2x^2 - 11x + 12 = 0$

x = 3/2 or x = 4

j) $8x^2 - 6x + 1 = 0$

x = 1/4 or x = 1/2

k) $2x^2 + 3x - 9 = 0$

x = 3/2 or x = -3

Exam question:

Solve the following equation by factorising: $8x^2 - 6x + 10 = 9$

$8x^2 - 6x + 1 = 0$

$(4x - 1)(2x - 1) = 0$

x = 1/4 or x = 1/2