

Solving equations

1. Solve the following equations.

a) $4x - 10 = 2$

b) $3x - 5(3 - 2x) + 3(-2 + 4x) = 3 - 8(2 - 4x)$

c) $0 = 4x^2 + 3x$

d) $0 = x^2 - 4x + 4$

e) $3x^5 - x^4 - 2x^3 = 0$

f) $0 = -2x^2 + 3x - 2$

2. Solve the following equations.

a) $2 - \sqrt{x} = 1$

b) $\sqrt{x+1} = x - 1$

c) $\sqrt{x+4} + 2 = x$

d) $\sqrt{2x-15} = x - 7$

e) $\sqrt{4x + \sqrt{x+5}} = \sqrt{4x+3}$

f) $\sqrt{1+x\sqrt{1+8x}} = x + 1$

3. Solve the following equations.

a) $|4 - x| = 3$

b) $|x^2 - 1| = 3$

c) $|x^2 - 3x + 2| = 0$

d) $\frac{|x+4|}{x+2} = \frac{x-1}{x+5}$