Solving Quadratics by Rearranging

(a)

Solve $42 - x^2 = 11x$

$x = -14, x = 3$

(b)

Solve $8x^2 - 3 = 6 - 14x$

$x = \frac{1}{2}, x = -\frac{9}{4}$

(c)

Solve $12 + x - 7x^2 = 28x + 8$

$x = -\frac{1}{7}, x = 4$

(d)

Solve $3x(x - 2) = x + 10$

$x = \frac{10}{3}, x = -1$

(e)

Solve $(2x + 1)(x + 5) = 4x + 2$

$x = -\frac{1}{2}, x = -3$

(f)

Solve $(3x - 1)^2 = 17 - 6x$

$x = -\frac{4}{3}, x = \frac{4}{3}$

(g)

Solve $(10x - 7)(x - 2) = 12x$

$x = \frac{7}{2}, x = \frac{2}{5}$

(h)

Solve $(x + 2)^3 = 4 + x(x^2 + 1)$

$x = -\frac{4}{3}, x = -\frac{1}{2}$

(i)

Solve $\sqrt{5x - 6} = 3 - 2x$

$x = \frac{5}{4}, x = 3$

(j)

Solve $x + \sqrt{4(x - 2)} = 5$

$x = 11, x = 3$