1) Solve each equation by completing the square. Round answers to 2 decimal places where necessary.

a) $x^2 + 14x - 38 = 0$

b) $x^2 + 6x - 59 = 0$

c) $x^2 + 14x - 51 = 0$

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

e) $x^2 + 6x + 8 = 0$

f) $x^2 - 12x + 23 = 0$

g) $x^2 - 6x = -91$

h) $8x^2 + 16x = 42$

i) $4x^2 + 4x + 36 = 0$

j) $3x^2 + 5x - 4 = 0$

Answers

1)a) $x = -16.33, 2.33$ **b)** $x = -11.25, 5.25$ **c)** $x = -17, 3$ **d)** $x = 1, 11$ **e)** $x = -4, -2$ **f)** $x = 2.39, 9.61$
g) no real solutions **h)** $x = -\frac{7}{2}, \frac{3}{2}$ **i)** no real solutions **j)** $x = -2.26, 0.59$