N5 Maths: Completing the Square

Answers

Q1 **a)** $(x+1)^2$ **b)** $(x+3)^2$ **c)** $(x-3)^2$

d) $(x+5)^2$ **e)** $(x-4)^2$ **f)** $(x-6)^2$

g) $\left(x+\frac{3}{2}\right)^2$ **h)** $\left(x+\frac{5}{2}\right)^2$ **i)** $\left(x-\frac{7}{2}\right)^2$

Q2 **a)** $(x+1)^2+6$ **b)** $(x+2)^2-9$ **c)** $(x+3)^2+3$

d) $(x+4)^2-10$ **e)** $(x+5)^2-26$ **f)** $(x+6)^2-5$

g) $(x+7)^2-9$ **h)** $(x+8)^2+16$ **i)** $(x+9)^2-100$

Q3 **a)** $(x-1)^2+2$ **b)** $(x-2)^2-3$ **c)** $(x-3)^2-2$

d) $(x-4)^2-14$ **e)** $(x-5)^2-25$ **f)** $(x-6)^2-17$

g) $(x-7)^2-52$ **h)** $(x-8)^2-9$ **i)** $(x-9)^2-55$

Q4 **a)** $\left(x+\frac{3}{2}\right)^2-\frac{5}{4}$ **b)** $\left(x+\frac{1}{2}\right)^2+\frac{7}{4}$ **c)** $\left(x+\frac{5}{2}\right)^2-\frac{37}{4}$

d) $\left(x+\frac{3}{2}\right)^2-\frac{9}{4}$ **e)** $\left(x+\frac{7}{2}\right)^2-\frac{65}{4}$ **f)** $\left(x+\frac{9}{2}\right)^2-\frac{49}{4}$

g) $\left(x+\frac{5}{2}\right)^2-\frac{41}{4}$ **h)** $\left(x+\frac{11}{2}\right)^2-\frac{97}{4}$ **i)** $\left(x+\frac{7}{2}\right)^2-\frac{85}{4}$

Q5 **a)** $\left(x-\frac{3}{2}\right)^2+\frac{7}{4}$ **b)** $\left(x-\frac{1}{2}\right)^2+\frac{11}{4}$ **c)** $\left(x-\frac{5}{2}\right)^2-\frac{49}{4}$

d) $\left(x-\frac{3}{2}\right)^2+\frac{23}{4}$ **e)** $\left(x-\frac{7}{2}\right)^2-\frac{69}{4}$ **f)** $\left(x-\frac{9}{2}\right)^2-\frac{89}{4}$

g) $\left(x-\frac{5}{2}\right)^2-\frac{61}{4}$ **h)** $\left(x-\frac{11}{2}\right)^2-\frac{169}{4}$ **i)** $\left(x-\frac{7}{2}\right)^2+\frac{11}{4}$

This resource is copyright © Maths.scot, released under a Creative Commons "Attribution, Non-Commercial, No Derivatives" (CC BY-NC-ND 4.0) licence.