



Stealth Quadratics Exam Questions (from OCR 4721)

Q1 (Jun 2005, Q4)

Solve the equation $x^6 + 26x^3 - 27 = 0$. [5]

Q2 (Jan 2007, Q4)

Solve the equation $x^{\frac{2}{3}} + 3x^{\frac{1}{3}} - 10 = 0$. [5]

Q3 (Jun 2007, Q6)

By using the substitution $y = (x + 2)^2$, find the real roots of the equation

$$(x + 2)^4 + 5(x + 2)^2 - 6 = 0. \quad [6]$$

Q4 (Jun 2008, Q4)

Solve the equation $2x - 7x^{\frac{1}{2}} + 3 = 0$. [5]

Q5 (Jan 2009, Q3)

Solve the equation $3x^{\frac{2}{3}} + x^{\frac{1}{3}} - 2 = 0$. [5]

Q6 (Jun 2012, Q7)

Solve the equation $x - 6x^{\frac{1}{2}} + 2 = 0$, giving your answers in the form $p \pm q\sqrt{r}$, where p, q and r are integers. [6]

Q7 (Jun 2014, Q3)

Find the real roots of the equation $4x^4 + 3x^2 - 1 = 0$. [5]

Q8 (Jun 2015, Q4)

Solve the equation $x^{\frac{2}{3}} - x^{\frac{1}{3}} - 6 = 0$. [5]
