

March 4th

One root of a quadratic equation is

Find the equation. $\frac{5 + \sqrt{17}}{4}$

The other solution = $\frac{5 - \sqrt{17}}{4}$

Hence $x = \frac{5 \pm \sqrt{17}}{4}$

Therefore $4x = 5 \pm \sqrt{17}$

Giving $4x - 5 = \pm \sqrt{17}$

Squaring both sides $(4x - 5)^2 = 17$

Hence $16x^2 - 40x + 25 = 17$

Therefore $16x^2 - 40x + 8 = 0$

Giving $2x^2 - 5x + 1 = 0$