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$$\begin{array}{|c|c|c|} \hline \textbf{09} & \textbf{1b} & Solve \frac{5x-4}{x} = 2. \\ \hline & \frac{5x-4}{x} = 2 \\ & \text{Multiply both sides by } x: \\ \hline & x \times \frac{5x-4}{x} = 2 \times x \\ & 5x-4=2x \\ & 5x-2x=4 \\ & 3x=4 \\ & \frac{3x}{3}=\frac{4}{3} \\ & x=1\frac{1}{3} \\ \hline \end{array}$$

## **Board of Studies: Notes from the Marking Centre**

Most candidates successfully adopted the simple approach of multiplying both sides of the equation by x and then solving the resulting linear equation. A more complicated attack was to instead multiply both sides of the equation by  $x^2$  to produce a quadratic equation. Candidates could then still gain full marks by rejecting the solution x = 0 and correctly concluding that  $x = \frac{4}{x^2}$ 

Source: http://www.boardofstudies.nsw.edu.au/hsc\_exams/

<sup>\*</sup> These solutions have been provided by projectmaths and are not supplied or endorsed by the Board of Studies