

## STEP II, 2013, Q7 EC

7. This question was attempted by a large number of candidates, only slightly fewer than question 2, and was one of the more successful ones with an average score above half of the marks. While some candidates proved the converse of the required result, part (i) of the question was generally done well, although a surprising number of candidates did not write down the numerical solutions when asked. Those students who realised the way to write  $x$  and  $y$  in terms of  $m$  and  $n$  reached the result of part (ii) easily, while others sometimes spent a lot of effort on this making little or no progress. In part (iii) many candidates spotted the difference of two squares, but some did not realise that there would be two ways to factorise  $b^3$ . Only very few students were able to solve the final part of the question.



# NextStepMaths.com

To view mark schemes, fully worked solutions and examiner's comments, and for more details about tutoring and other services offered, go to [NextStepMaths.com](https://www.NextStepMaths.com)