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| Factors by Grouping 'Two and Two' |

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| http://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1850.gifNow, consider the expression 7*x* + 14*y* + *bx* + 2*by*.  Clearly, there is no [factor](http://www.mathsteacher.com.au/year9/ch08_factors/01_factors/number.htm#factors) common to everyterm.  However, it is clear that 7 is a [common factor](http://www.mathsteacher.com.au/year9/ch08_factors/01_factors/number.htm#M1) of the first two terms and *b* is a common factorof the last two terms.  So, the expression can be grouped into two pairs of two terms as shown.http://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1851.gifhttp://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1852.gifhttp://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1853.gifThis factorisation technique is called grouping**'Two and Two'**; and it is used to factorise anexpression consisting of four terms.Example 8http://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1854.gif*Solution:*http://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/factor25.gifhttp://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1856.gifhttp://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1857.gifhttp://www.mathsteacher.com.au/year9/ch08_factors/04_grouping/Image1858.gif |