FACTORISING BY GROUPING IN PAIRS

Factorise:

1 $a(x+2)+b(x+2)$ **2** $3a(2b-3c)-m(2b-3c)$ **3** $p(a+b)+q(a+b)-r(a+b)$

4 $x^2(2x-1)+4(2x-1)$ **5** $ax+4a+bx+4b$ **6** $x^2-xy+xz-yz$

10 $a^3+3a^2b+ab^2+3b^3$ **11** $ac-2bc-2ad+4bd$ **12** $3xy-6y+7x-14$

16 $x^3+3x^2+4x+12$ **17** $p^2q-pq^2+5p-5q$ **18** m^2p+m^2+np+n

19 x^2y+x^2+y+1 **20** $ab-3a-4b+12$ **21** $2x-6y-xy+3y^2$

22 When $3m^2-3mn-m+n$ is factorised, the answer is:

A $(3m-1)(m-n)$ **B** $(3m-n)(m-1)$ **C** $(3m-1)(m+n)$ **D** $(3m+1)(m-n)$

23 Indicate whether each answer is a correct or incorrect factorisation of $2x^3-2x^2-2x+2$.

(a) $2(x+1)(x+1)(x-1)$ **(b)** $2(x+1)(x-1)^2$ **(c)** $2(x+1)(x-1)(x-1)$ **(d)** $2(x-1)(x+1)^2$