



## FACTORISING

### MIXED FACTORS

Ref: G226. **4F3**

<b>A1</b> Factorise fully: $3ab + 6a$	<b>A2</b> Factorise fully: $2ab + 6b$	<b>A3</b> Factorise fully: $4a - 6ab$	<b>A4</b> Factorise fully: $9b - 6ab$
<b>B1</b> Factorise fully: $2a^2 + 4a$	<b>B2</b> Factorise fully: $12a - 4a^2$	<b>B3</b> Factorise fully: $12a^3 + 20a$	<b>B4</b> Factorise fully: $8a^4 - 6a$
<b>C1</b> Factorise fully: $15ab + 5abc$	<b>C2</b> Factorise fully: $2ab^2c - 8bc$	<b>C3</b> Factorise fully: $4ab^2 + 10a^2b$	<b>C4</b> Factorise fully: $8ab^2c - 12ac^2$
<b>D1</b> Factorise fully: $3a^4 + 9a^2$	<b>D2</b> Factorise fully: $5a^5 + 10a^2$	<b>D3</b> Factorise fully: $6a^3 - 15a^7$	<b>D4</b> Factorise fully: $15a^7b - 10a^5$
<b>E1</b> Factorise fully: $4a^3b + 16a^2b$	<b>E2</b> Factorise fully: $12a^3b - 3a^5b^3$	<b>E3</b> Factorise fully: $10a^3b^4 + 25a^6b$	<b>E4</b> Factorise fully: $8a^6b^5 - 6a^2b^7$



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Ref: G226. **4F3**

<b>A1</b> Factorise fully: $3ab + 6a = 3a(b + 2)$	<b>A2</b> Factorise fully: $2ab + 6b = 2b(a + 3)$	<b>A3</b> Factorise fully: $4a - 6ab = 2a(2 - 3b)$	<b>A4</b> Factorise fully: $9b - 6ab = 3b(3 - 2a)$
<b>B1</b> Factorise fully: $2a^2 + 4a = 2a(a + 2)$	<b>B2</b> Factorise fully: $12a - 4a^2 = 4a(3 - a)$	<b>B3</b> Factorise fully: $12a^3 + 20a = 4a(3a^2 + 5)$	<b>B4</b> Factorise fully: $8a^4 - 6a = 2a(4a^3 - 3)$
<b>C1</b> Factorise fully: $15ab + 5abc = 5ab(3 + c)$	<b>C2</b> Factorise fully: $2ab^2c - 8bc = 2bc(ab - 4)$	<b>C3</b> Factorise fully: $4ab^2 + 10a^2b = 2ab(2b + 5a)$	<b>C4</b> Factorise fully: $8ab^2c - 12ac^2 = 4ac(2b^2 - 3c)$
<b>D1</b> Factorise fully: $3a^4 + 9a^2 = 3a^2(a^2 + 3)$	<b>D2</b> Factorise fully: $5a^5 + 10a^2 = 5a^2(a^3 + 2)$	<b>D3</b> Factorise fully: $6a^3 - 15a^7 = 3a^3(2 - 5a^4)$	<b>D4</b> Factorise fully: $15a^7b - 10a^5 = 5a^5(3a^2b - 2)$
<b>E1</b> Factorise fully: $4a^3b + 16a^2b = 4a^2b(a + 4)$	<b>E2</b> Factorise fully: $12a^3b - 3a^5b^3 = 3a^3b(4 - a^2b^2)$	<b>E3</b> Factorise fully: $10a^3b^4 + 25a^6b$ $= 5a^3b(2b^3 + 5a^3)$	<b>E4</b> Factorise fully: $8a^6b^5 - 6a^2b^7$ $= 2a^2b^5(4a^4 - 3b^2)$