Name:

Level 2 Further Maths

Factorising

Corbettmaths

Ensure you have: Pencil or pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Revision for this topic

www.corbettmaths.com/more/further-maths/

1. Factorise $9y^2 - 7y$

$y(9y - 7)$

(1)

2. Factorise fully $8x^3 + 6x^2$

$2x^2(4x + 3)$

(1)

3. Factorise fully $9abc - 27bcd$

$9bc(a - 3d)$

(1)

4. Factorise fully $8ab^2 + 12a^2b - 24b^3c^2$

$$4b\left(3a^2 + 2ab - 6b^2c^2\right)$$

(2)

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5. Factorise fully $15xy^3z + 20x^2y^4z$

$$5xy^3z\left(4xy + 3\right)$$

(2)

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6. Factorise fully $7a^5b^2 - 4a^4b^3 + 9a^6b$

$$a^4b\left(9a^2 + 7ab - 4b^2\right)$$

(2)

7. Factorise fully $(x+5)^4 + (x+5)^3$

Do not attempt to expand brackets.

$$(x+5)^3 \left((x+5) + 1\right)$$

$$(x+5)^3 (x+6)$$

(2)

8. Factorise fully $(y+2)^7 - (y+2)^6$

Do not attempt to expand brackets.

$$(y+2)^6 \left((y+2) - 1\right)$$

$$(y+2)^6 (y+1)$$

(2)

9. Factorise fully $6(x+1)^4 + 8(x+1)^3$

Do not attempt to expand brackets.

$$2(x+1)^3 \left(3(x+1) + 4\right)$$

$$2(x+1)^3 (3x+7)$$

(3)

10. Factorise fully $(x + 9)^7 + (x + 9)^6(2x - 1)$

Do not attempt to expand brackets.

$$(x+9)^6 \left((x+9) + (2x - 1) \right)$$

$$(x+9)^6 (3x + 8)$$

$(x+9)^6(3x+8)$

(3)

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11. Factorise fully $(y + 2)^4 - (y + 2)^3(y - 1)$

Do not attempt to expand brackets.

$$(y+2)^3 \left((y+2) - (y - 1) \right)$$

$$(y+2)^3 (3)$$

$3(y+2)^3$

(3)