

Factorising Expressions (B)

ANSWERS



Factorise the following quadratic expressions fully.

Section A

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|---------------------------------|---|
| 1) $8x + 24$ $8(x + 3)$ | 10) $72wz + 45w^2z$ $9wz(8 + 5w)$ |
| 2) $15 + 25y$ $5(3 + 5y)$ | 11) $22x^2y - 55xy^2$ $11xy(2x - 5y)$ |
| 3) $32 - 40w$ $8(4 - 5w)$ | 12) $16k^3 + 24k^2$ $8k^2(2k + 3)$ |
| 4) $18c - 36$ $18(c - 2)$ | 13) $9h^2g - 15h^3$ $3h^2(3g - 5h)$ |
| 5) $16d^2 - 4d$ $4d(4d - 1)$ | 14) $12c^2d^2 + 20c^3$ $4c^2(3d^2 + 5c)$ |
| 6) $12s + 60s^2$ $12s(1 + 5s)$ | 15) $28a^3b^2 - 7a^2b$ $7a^2b(4ab - 1)$ |
| 7) $21xy + 14x$ $7x(3y + 2)$ | 16) $60x^2y^3 - 35xy^2$ $5xy^2(12xy - 7)$ |
| 8) $27ab - 18a^2$ $9a(3b - 2a)$ | 17) $88s^4t + 56s^3t^2$ $8s^3t(11s + 7t)$ |
| 9) $12s^2t + 28s$ $4s(3s + 7)$ | 18) $36p^3q^4 - 48p^4q^2$ $12p^3q^2(3q^2 - 4p)$ |

Section B

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|---|--|
| 1) $6 - 12gh + 3h$ $3(2 - 4gh + h)$ | 10) $2x + xy - x^2$ $x(2 + y - x)$ |
| 2) $21st - 7t + 14$ $7(3st - t + 2)$ | 11) $5k^2 - 10jk + k$ $k(5k - 10j + 1)$ |
| 3) $22 - 44vw + 11v$ $11(2 - 4vw + v)$ | 12) $9cd - 3c^2d + 12c$ $3c(3d - cd + 4)$ |
| 4) $4ab + 2b - abc$ $b(4a + 2 - ac)$ | 13) $7xyz + xy^2 - x^2y$ $xy(7z + y - x)$ |
| 5) $5suv - 10sv + 15su$ $5s(uv - 2v + 3u)$ | 14) $e^2f - 5e^3f^2 + e^2$ $e^2(f - 5ef^2 + 1)$ |
| 6) $16xy + 24y - 8xyz$ $8y(2x + 3 - xz)$ | 15) $8st^2u - 32s^2t + 64st$ $8st(tu - 4s + 8)$ |
| 7) $9wu - 27wuv + 45w$ $9w(u - 3uv + 5)$ | 16) $12g^3h - 9g^2h^2 + 18g^2h$ $3g^2h(4g - 3h + 6)$ |
| 8) $24gh - 12g + 15h$ $3(8gh - 4g + 5h)$ | 17) $\frac{1}{2}ab + \frac{3}{4}a^2 - a$ $\frac{1}{4}a(2b + 3a - 4)$ |
| 9) $132pqr - 96qr + 108pqrs$
$12qr(11p - 8 + 9ps)$ | 18) $\frac{3}{4}x^4y - x^2y^3 + \frac{1}{2}x^3y^2$
$\frac{1}{4}x^2y(3x^2 - 4y^2 + 2xy)$ |