Multiplying Polynomials

Multiply the polynomials.

1) $x + y$, $-4x^2y$

2) $u^2 + v^2 + u + v$, $u - v$

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3) $7g$, $-9g^2 - g^3 - 1$

4) $d^4 + 2 - 3d^2 - d$, $2d + 1 - d^3$

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5) $5 + k^2 + 6k$, $2k - 3$

6) $2p^3 + q^3$, $p^3 - q^3 + 6$

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7) $3mn - m^2 - n^2 + 3$, $n + m$

8) $6t^5$, $t^2 + 4 - 7t + 5t^5$

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Multiplying Polynomials

Answer key

Multiply the polynomials.

1) $x + y$, $-4x^2y$

$$-4x^3y - 4x^2y^2$$

2) $u^2 + v^2 + u + v$, $u - v$

$$u^3 - u^2v + uv^2 - v^3 + u^2 - v^2$$

3) $7g$, $-9g^2 - g^3 - 1$

$$-7g^4 - 63g^3 - 7g$$

4) $d^4 + 2 - 3d^2 - d$, $2d + 1 - d^3$

$$-d^7 + 5d^5 + 2d^4 - 8d^3 - 5d^2 + 3d + 2$$

5) $5 + k^2 + 6k$, $2k - 3$

$$2k^3 + 9k^2 - 8k - 15$$

6) $2p^3 + q^3$, $p^3 - q^3 + 6$

$$2p^6 - p^3q^3 - q^6 + 12p^3 + 6q^3$$

7) $3mn - m^2 - n^2 + 3$, $n + m$

$$-m^3 + 2m^2n + 2mn^2 - n^3 + 3m + 3n$$

8) $6t^5$, $t^2 + 4 - 7t + 5t^5$

$$30t^{10} + 6t^7 - 42t^6 + 24t^5$$