

Multiplying a Polynomial and a Monomial

Find the product.

1 $3q(q^2 - 6q + 5)$

2 $9(x^2 + xy - 8y^2)$

3 $7(6x^2 + 9xy + 10y^2)$

4 $3x(2x^2 - 5x + 8)$

5 $x^2(-x^2 + 2x + 7)$

6 $10(-x^2 + 10x - 6)$

7 $2k^2(2k^3 + 6k - 4)$

8 $6x^2(3x^2 - 5xy - 6)$

9 $-x(-x^2 - 4x + 4xy)$

10 $3r(2r^2 - 3ry + 2r)$

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Answers

1 $3q(q^2 - 6q + 5)$

$3q^3 - 18q^2 + 15q$

3 $7(6x^2 + 9xy + 10y^2)$

$42x^2 + 63xy + 70y^2$

5 $x^2(-x^2 + 2x + 7)$

$-x^4 + 2x^3 + 7x^2$

7 $2k^2(2k^3 + 6k - 4)$

$4k^5 + 12k^3 - 8k^2$

9 $-x(-x^2 - 4x + 4xy)$

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

2 $9(x^2 + xy - 8y^2)$

$9x^2 + 9xy - 72y^2$

4 $3x(2x^2 - 5x + 8)$

$6x^3 - 15x^2 + 24x$

6 $10(-x^2 + 10x - 6)$

$-10x^2 + 100x - 60$

8 $6x^2(3x^2 - 5xy - 6)$

$18x^4 - 30x^3y - 36x^2$

10 $3r(2r^2 - 3ry + 2r)$

$6r^3 - 9r^2y + 6r^2$