



Multiplying Polynomials - Box Method

Name _____

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BM:05

Multiply the polynomials using box method.

1) $-2u(3u - v - 1) =$

	3u	-v	-1
-2u			

2) $5m^4(m^2 - m + 3) =$

	m^2	-m	3
$5m^4$			

3) $9(-4w^3 + w^2 + 5w) =$

	$-4w^3$	w^2	5w
9			

4) $7pq(9q^3 + p^2 + pq) =$

	$9q^3$	p^2	pq
7pq			

5) $-3a^2(-2b + c - 4d) =$

	-2b	c	-4d
$-3a^2$			

6) $4k(-k^2 + 5k + 2) =$

	$-k^2$	5k	2
4k			

7) $6n^4(n^3 - 4n^2 + 2n) =$

	n^3	$-4n^2$	2n
$6n^4$			

8) $x^2y^2(x + 6y - 8) =$

	x	6y	-8
x^2y^2			



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Answer key

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Multiply the polynomials using box method.

1) $-2u(3u - v - 1) = -6u^2 + 2uv + 2u$

	3u	-v	-1
-2u	$-6u^2$	$2uv$	$2u$

2) $5m^4(m^2 - m + 3) = 5m^6 - 5m^5 + 15m^4$

	m^2	-m	3
$5m^4$	$5m^6$	$-5m^5$	$15m^4$

3) $9(-4w^3 + w^2 + 5w) = -36w^3 + 9w^2 + 45w$

	$-4w^3$	w^2	5w
9	$-36w^3$	$9w^2$	$45w$

4) $7pq(9q^3 + p^2 + pq) = 63pq^4 + 7p^3q + 7p^2q^2$

	$9q^3$	p^2	pq
7pq	$63pq^4$	$7p^3q$	$7p^2q^2$

5) $-3a^2(-2b + c - 4d) = 6a^2b - 3a^2c + 12a^2d$

	-2b	c	-4d
$-3a^2$	$6a^2b$	$-3a^2c$	$12a^2d$

6) $4k(-k^2 + 5k + 2) = -4k^3 + 20k^2 + 8k$

	$-k^2$	5k	2
4k	$-4k^3$	$20k^2$	$8k$

7) $6n^4(n^3 - 4n^2 + 2n) = 6n^7 - 24n^6 + 12n^5$

	n^3	$-4n^2$	2n
$6n^4$	$6n^7$	$-24n^6$	$12n^5$

8) $x^2y^2(x + 6y - 8) = x^3y^2 + 6x^2y^3 - 8x^2y^2$

	x	6y	-8
x^2y^2	x^3y^2	$6x^2y^3$	$-8x^2y^2$