

Name : _____

Multiplying Polynomials

Multi-variable: S3

Multiply the following.

1) $\frac{3}{4}pq\left(4q^2 + 8pq^4 - \frac{2}{9}r - p^6 - \frac{8}{9}q\right)$

2) $4g^7h(7gh + g + h^5 + g^4h^7)$

3) $6d^6(-5c^5 - 2cd^2 -$

$a^3c + 27bc^3 + a^4)$

5) $-9v^2w^3x^2(5v^2w^6 -$

$^2u - s^5 + 8u)$

7) $-2yz^5(y^5 - 14yz - 3yz^5 - 2z - 15y^3)$

8) $15m^4n^2\left(-\frac{2}{3}m^3 - \frac{6}{5}n^2 - m^3n\right)$

PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com

Name : _____

Answer key

Multiplying Polynomials

Multi-variable: S3

Multiply the following.

1) $\frac{3}{4}pq\left(4q^2 + 8pq^4 - \frac{2}{9}r - p^6 - \frac{8}{9}q\right)$

2) $4g^7h(7gh + g + h^5 + g^4h^7)$

$-\frac{3}{4}p^7q + 6p^2q^5 + 3pq^3 - \frac{1}{9}pqr - \frac{2}{9}pq^2$

$4g^{11}h^8 + 4g^7h^6 + 28g^8h^2 + 4g^8h$

3) $6d^6(-5c^5 - 2cd^2 -$

PREVIEW

$a^3c + 27bc^3 + a^4)$

Gain complete access to the largest collection of worksheets in all subjects!

$18c^5d^7 - 30c^5d^6 -$

$27b^4c^3 + ab^5 + 9b^4$

5) $-9v^2w^3x^2(5v^2w^6 -$

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

$^2u - s^5 + 8u)$

$-45v^4w^9x^2 + 72v$

www.mathworksheets4kids.com

$u - 32st^7u^2 - 64st^5u^2$

7) $-2yz^5(y^5 - 14yz - 3yz^5 - 2z - 15y^3)$

8) $15m^4n^2\left(-\frac{2}{3}m^3 - \frac{6}{5}n^2 - m^3n\right)$

$6y^2z^{10} - 2y^6z^5 + 30y^4z^5 + 28y^2z^6 + 4yz^6$

$-15m^7n^3 - 10m^7n^2 - 18m^4n^4$