monomials •multiplication•

Example:

$$(4x^2y^5)(4x^3y) =$$

1. Multiply the coefficents.

$$(4x^2y^5)(4x^3y) = 16$$

2. Multiply the variables by adding the exponents.

$$(x^2)(x^3) = x^{2+3} = x^5$$

$$(y^5)(y) = y^{5+1} = y^6$$

Answer: 16x5y6

Multiply the monomials.

1.
$$(3)(4x) =$$

2.
$$(5xy^3)(2x^2y) =$$

3.
$$(xy^8)(7xy^3) =$$

4.
$$(y^3)(y^3) =$$

5.
$$(3x)(4x^4y) =$$

6.
$$(6xy^4)(2x^3y^6) =$$

7.
$$(x^4y^5)(xy) =$$

8.
$$(2xy^5)(8x^3y) =$$

9.
$$(10xy^5)(2xy) =$$

10.
$$(7x)(2xy) =$$

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1. Multiply the coefficents.

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$$(x^2)(x^3) = x^{2+3} = x^5$$

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Answer: 16x5y6

Multiply the monomials.

1.
$$(3)(4x) =$$

2.
$$(5xy^3)(2x^2y) = 10x^3y^4$$

$$10x^3y^4$$

3.
$$(xy^8)(7xy^3) = 7x^2y^{11}$$

$$7x^2y^{11}$$

4.
$$(y^3)(y^3) =$$

5.
$$(3x)(4x^4y) =$$

6.
$$(6xy^4)(2x^3y^6) = 12x^4y^{10}$$

$$12x^4y^{10}$$

7.
$$(x^4y^5)(xy) =$$

8.
$$(2xy^5)(8x^3y) = 16x^4y^6$$

9.
$$(10xy^5)(2xy) = 20x^2y^6$$
 10. $(7x)(2xy) =$

$$20x^2y^6$$

10.
$$(7x)(2xy) =$$

$$14x^2y$$