

1. Fill out the following table:

Monomial	Coefficient	Degree
$-4xy^3$	-4	$4 \leftarrow (1+3)$
x^2z^4	1	$6 \leftarrow (2+4)$
$-x^{99}$	-1	99
5	5	0

2. Are the following pairs of monomials like terms?

$4b$ and $-3B$ **No**

$7xyz$ and $7xy$ **No**

$-2x^7$ and $3x^7$ **Yes**

$5a^2b$ and $5ab^2$ **No**

3. Is each of the following a monomial, binomial, or trinomial?

$3x + 2$ **binomial**

$3x^3 - x + 1$ **trinomial**

$5x^9$ **monomial**

4. List the terms and coefficients of the polynomial $3y^4 - 2y^3 - y + 11$.

Term	Coefficient
$3y^4$	3
$-2y^3$	-2
$-y$	-1
11	11

5. What's the degree of $2x^8 - x^3 + 7x^9 + 4x^4 + 2 - x$? 9

6. What's the degree of $21m - 6m^7 + 9m^2 + 13 - 8m^5$? 7

7. Write $7a - 4a^3 + 2a^{11} - 5 + a^4$ in descending order of degree.

$$2a^{11} + a^4 - 4a^3 + 7a - 5$$

8. What's the degree of $3x^7y^5$? 12 $\leftarrow 7+5$

9. Combine like terms.

$$x^2 + 8x^2 = 9x^2$$

$$-12x^3 + 10x^3 = -2x^3$$

$$8y^{14} - 13y^{14} = -5y^{14}$$

$$-99h + 99h = 0$$

10. Combine like terms and write the resulting polynomial in descending order of degree.

$$\underline{5x^4} - \underline{3x^2} + \underline{2x^4} + \underline{5} + \underline{x^2} - \underline{4}$$

$$= 7x^4 - 2x^2 + 1$$

11. Combine like terms and write the resulting polynomial in descending order of degree.

$$\underline{8t^3} - \underline{9t^2} + \underline{2t^3} - \underline{11} + \underline{5t^7} + \underline{9t^2} - \underline{4t^3} + \underline{1}$$

$$= 5t^7 + 6t^3 - 10$$

Q: What word starts with "e" and has only one letter in it?