

Name: _____

Polynomials

A) State whether or not each of the following expressions is a polynomial. If it is a polynomial, state its degree and classify it as a monomial, binomial, trinomial.

1) $3^{-1}x^4 - 7^{-1}x + 2$

2) $-9x^{1/4} + 2x^{1/3} - 4x^{1/2}$

3) $4x^5y^3 + \frac{3}{xy^2}$

4) $-\frac{3}{2}x^6$

5) $a^7 - a^3b^5 + b^8 - 1$

6) $7 - 4x$

7) $\frac{6x^3 + 8x^2}{x}$

8) $10x^{-2} + 3x^{-1} + 5$

9) $5^{-1}x^5 + 2x^3 + 3^{-1}x^2$

10) $-3 + 5x^2 + 6x^4 - 3x^9$

11) $-4x^5y^{-2} - 3x^{-4}y^9$

12) $\frac{2}{5}x^2y^9 + 3xy - x^3y^4z^2$

13) $3a^3b^4 - 2a^2b^2$

14) $x^2y^{-9} + \frac{3}{8}xy$

15) $x^{2\frac{2}{3}}y^9 + 3x^5y^9$