Name key Date

Mrs. Roumbos 8A Period

☆On Test☆

Do Now

Are the following polynomials? Yes or No?

**Remember polynomials have terms whose variables have exponents that are whole numbers. The exponents may NOT be fractions, decimals or negative numbers. A polynomial can NOT have a variable in the denominator (because the exponent is really negative).

Ex's: Polynomials: -4, p, $5m^3$, $-2ab^3c$, 2n, x^3, $4a^4b^3$, 7 NOT polynomials: $p^{2.4}$, 2^x, $\sqrt{x}$, $\frac{5}{g^2}$, $\frac{4}{3x}$, $-3x^{-4}$

$\sqrt{x} \rightarrow x^{\frac{1}{2}}$ $\frac{5}{g^2} \rightarrow 5g^{-2}$

1) $3x^{\frac{1}{2}}$

NO! B/c The exponent is a fraction & not a whole #

4) $2x^{-3}$

NO! B/c the exponent is a Neg # & not a whole #

2) $\frac{1}{x^2-1}$

$\frac{1}{x^2} \rightarrow x^{-2}$ (if it's neg, you can take it off the denominator & it turns pos)

NO! B/c the exponent is Negative & not a whole #

☆ Can't have a variable in the denominator (it's a Neg exponent)

5) $\sqrt{3x}$ $\sqrt{3} \cdot x^1$

yes! B/c the exponent is a whole #

3) $-3x^2$

yes! B/c The exponent is a whole #

6) $3\sqrt{x} \rightarrow x^{\frac{1}{2}}$

NO! B/c the exponent is a fraction and not a whole #

* Can't have an 'x' under a $\sqrt{}$ sign