

Warm-up

① $b^2 b^5 b^{-7}$

② $\left(\frac{r^{-2}}{r^3}\right)^3$

③ $\frac{16 m^4 n^{-5}}{2 m^{-1} n^{-2}}$

④ $\left(\frac{x^{-3} y^3}{x^5 y^6}\right)^2$

⑤ $(1.8 \times 10^7)(3.5 \times 10^6)$

5.2 Evaluate & Graph Polynomial Functions

Monomial - A variable, # or combo of
 1 ex. 17, $3x$, $-23x^2yz^0$

Polynomial - Sum of a bunch of monomials

many

$$f(x) = a_n x^n + a_{n-1} x^{n-1} + \dots + a_1 x^1 + a_0$$

- * all exponents must be whole #'s (positive)
- * Write from highest exponent to lowest
- * a_0 is the constant term (the # term)
no variable
- * a_n is the leading coefficient
- * The highest power/exponent is called the degree.

<u>Standard Form</u>	<u>Degree</u>	<u>Type</u>
$f(x) = 14$	0 (no variable)	Constant
$f(x) = 2x + 3$	1	Linear
$f(x) = 14x^2 - 5x$	2	Quadratic
$f(x) = -62x^3 - \pi x^2 + 1$	3	Cubic