

8 - 4

Polynomials

polynomial: multiple monomials
(+ or -)

binomial: sum of 2 monomials
 $3x^2 + 5x$

trinomial: sum of 3 monomials
 $7y^3 + 2y^2 - 5y$

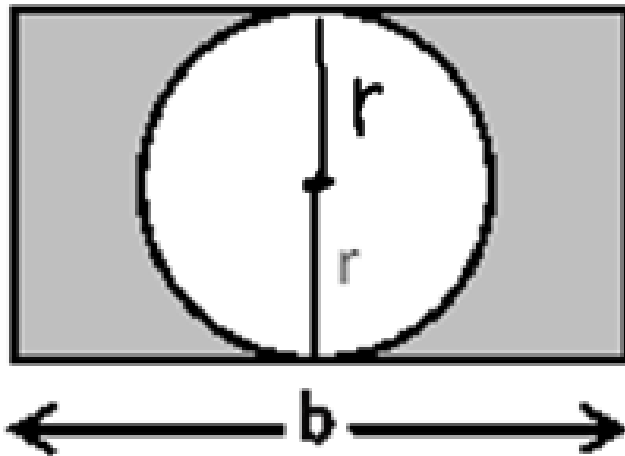
degree of a monomial: sum of the
exponents of all variables

Ex: $3x^2y^1$ $\boxed{3}$

Ex: 7 $\boxed{0}$

Ex: $-2x^1y^2z^3$ $\boxed{6}$

Ex: Write a polynomial to represent the area of the shaded region.



$$2rb - \pi r^2$$

degree of a polynomial: the
greatest degree of any term

$$\text{Ex: } -4x^4y^2 + 3x^2 + 5 \quad \boxed{4}$$

$$\text{Ex: } 5m^3n^2 \quad \boxed{3}$$

$$\text{Ex: } 3a^1 + 7ab^2 - 2a^3b + 16 \quad \boxed{3}$$

Arrange the terms of each polynomial so that the powers of x are in ascending order.

$L \rightarrow G$

Ex: $7x^2 + 2x^4 - 11$

$$-11 + 7x^2 + 2x^4$$

Ex: $2xy^3 + y^2 + 5x^3 - 3x^2y$

$$y^2 + 2xy^3 - 3x^2y + 5x^3$$

Arrange the terms of each polynomial so that the powers of x are in descending order.

Ex: $6x^{(2)} + 5 - 8x - 2x^{(3)}$

$$-2x^3 + 6x^2 - 8x + 5$$

Ex: $3a^3x^{(2)} - a^{(4)} + 4ax^{(5)} + 9a^2x^{(1)}$

$$4ax^5 + 3a^3x^2 + 9a^2x - a^4$$



Homework:

p.435 #22, 26 - 36 even, 38, 40, 46, 48

Don't freak out on me...it's 11 problems.