

## Sec. 8.1 Add and Subtract Polynomials

Problem 1

Find the **degree** of a monomial.  $\rightarrow$  product of a number and variable(s)  
 add the exponents of the variables

a.  $8xy$  degree: 2

b.  $-7y^4z$  degree:  $4+1=5$

c.  $11$  degree: 0

Problem 2: What is the sum or difference?

like terms: everything after the coefficient is the same.

add: add coefficients, keep term

$$3xy^2 + 5xy^2 = 8xy^2$$

$$(3+5)xy^2$$

a.  $3x^2 + 7x^2 = 10x^2$

b.  $4x^3y - 1x^3y = 3x^3y$



## Sec. 8.2 Multiplying and Factoring

Problem 1:

a.  $5m(3m^3 - m^2 + 8)$  \* Multiply  
Distribute Add exponents

$$15m^4 - 5m^3 + 40m$$

b.  $6x(2x^3 + 7x)$

$$12x^4 + 42x^2$$

## Problem 2: Factor out GCF

a.  $12x^2 + 8x$