

Review for Sections 2.4 and 2.5Example One

Simplify the following.

a)  $(3x^2 + 5x) + (7x^2 - 20x)$

*Remember the rule.*

1.  $\underline{3x^2} + \underline{5x} + \underline{7x^2} - \underline{20x}$

2.  $10x^2 + 15x \quad \underline{\text{or}} \quad 10x^2 - 15x$

b)  $(17x^3 + 35x^2 - 17x + 9) - (20x^3 - 19x^2 + 11x - 8)$

*add the opposite.*

1.  $\underline{(17x^3 + 35x^2 - 17x + 9)} + \underline{(-20x^3 + 19x^2 - 11x + 8)}$

2.  $-3x^3 + 54x^2 - 28x + 17$

c)  $3x^2(x^4 - 5x^3 + 2x^2 - 7)$

$$x^4(3x^2) - 5x^3(3x^2) + 2x^2(3x^2) - 7(3x^2)$$

$$= 3x^6 - 15x^5 + 6x^4 - 21x^2$$

$x^6 = \text{cherries}$        $x^4 = \text{pies}$   
 $x^5 = \text{bananas}$        $x^2 = \text{cheeseburgers}$

Complete all of the questions on the review sheet.