

**Chapter 7+ Test**

Your next test will look an awful lot like this. It will be closed book and closed notes, but you may use a calculator if you would like to. Take note of the language used here-I will not be able to tell you what the language means during the test. It is the same as the language I've been using in class, so there should be no surprises. The first few I've solved for you... use the rest as practice tonight.

**PART ONE: [B8, B11] Expand and simplify the following expressions:**

A)  $(x+4)(x-2)$

$= x^2 - 2x + 4x - 8$   
 $= x^2 + 2x - 8$



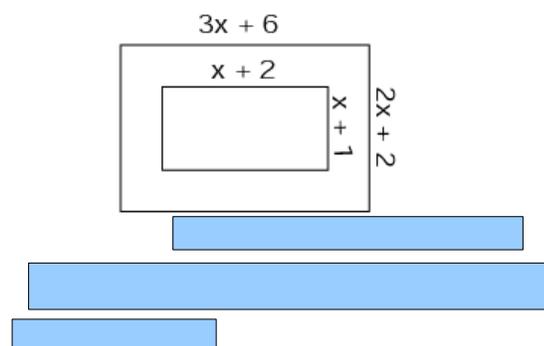
B)  $2(2x+3) - (x-3)$

$= 4x - x + 6 + 3$   
 $= 3x + 9$



C) The image below represents a back yard with a garden in the middle of it. What is the area NOT taken up by the garden?

$A_{\text{yard}} = A_{\text{total}} - A_{\text{garden}}$   
 $= (3x+6)(2x+2) - (x+2)(x+1)$   
 $= (6x^2 + 6x + 12x + 12) - (x^2 + x + 2x + 2)$   
 $= 5x^2 + 15x + 10$



**PART TWO: [B9] Fully factor each:**

A)  $6x^2 + 9x$

B)  $7x^4 + 7x^3$

C)  $x^3y^2 - x^2y^3$

**PART THREE[B12] Divide each**

A)  $\frac{10x+15}{5}$

B)  $\frac{36x^2 - 24x^3}{12x}$

C)  $\frac{15m^2n^3 + 25m^3n^4 - 45m^2n^2}{5m}$

**PART FOUR [B13]: Evaluate each for the values given:**

...you may be told to either "simplify then substitute" or "substitute then simplify" or "evaluate two different ways"

A)  $x^2 + 2x + 3$  if  $x=3$       B)  $-4(x + 2)$  if  $x = -5$       C)  $(x + 6)(x - 1)$  if  $x = -8$

**PART FIVE: Solving equations**

A) Find the coordinates of the intersection of these two lines...

B) Solve for the value of the variable...

C) Find the slope, y-intercept and x-intercept ...

**PART SIX; Solve inequalities**

**Stay tuned. This won't be on the chapter test but will be on the term test...and on a SMALL assignment later this week**