

## Precalc Homework #2 – Do in your notes

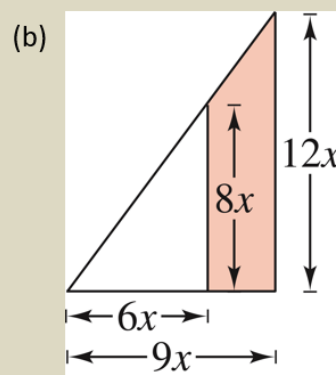
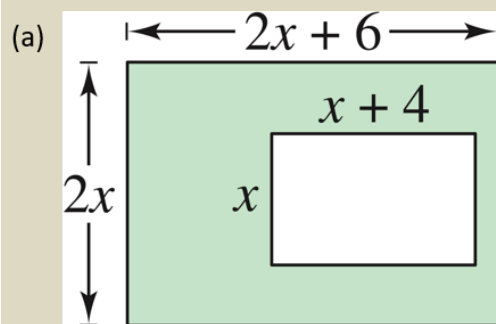
Due at the start of class on Wednesday 8/8

Textbook pages A37 #221, 226 and pA35-A36 #49, 61, 73, 75, 89, 93, 95

#221 – Cost, Revenue and Profit. An electronics manufacturer can produce and sell  $x$  MP3 players per week. The total cost  $C$  (in dollars) of producing  $x$  MP3 players is  $C = 73x + 25,000$ , and the total revenue  $R$  (in dollars) is  $R = 95x$ .

- (a) Find the profit  $P$  in terms of  $x$ .  
(b) Find the profit obtained by selling 5000 MP3 players per week.

#226 – Geometry. Find the area of the shaded region in each figure. Write your result as a polynomial in standard form.



Simplify and write in standard form:

49.  $(1 - x^3)(4x)$

Multiply or find the special product:

61.  $(x + 2y)(x - 2y)$

73.  $(-x^2 + x - 5)(3x^2 + 4x + 1)$       75.  $[(m - 3) + n][(m - 3) - n]$

89.  $5x(x + 1) - 3x(x + 1)$       93.  $(\sqrt{x} + \sqrt{y})(\sqrt{x} - \sqrt{y})$

95.  $(x - \sqrt{5})^2$