Assignment #4-3   Secondary 3 Honors

Carnegie Book:

Pg. 615-617   # $1(a - d, \; h - k)$ Don't cut them out and paste them, just work the problems **on your own paper**.

Additional Problems: Complete these problems on your own paper.

1.   Perform the indicated operations:

a. $\dfrac{3}{2x-1} - \dfrac{x+1}{x}$ b. $\dfrac{2x-4}{x^2-9} \div \dfrac{x^2-4}{4x+12}$ c. $\dfrac{4x^3}{(2x)^4}$

2.   Determine if the equations are functions:

a. $x^2 + y^2 = 9$ b. $y = \sqrt{x^2 - 4}$

3.   Determine whether the functions are even, odd or neither. (Hint: You can use your calculator.)

a. $y = \dfrac{1}{x^2}$ b. $y = \dfrac{1}{x}$ c. $y = \dfrac{2}{x-3}$

5.   Find a polynomial with roots $2 + \sqrt{3}$ and $2 - \sqrt{3}$

6.   From 1995 through 2003, the annual sales of S (in billions of dollars) of entertainment software can be modeled by $S(t) = \dfrac{848t^2+3220}{115t^2+1000}, 0 \le t \le 8$ where t is the number of years since 1995. For which year were the total sales of entertainment software about $5.3 billion?

7.   A company produces computer desks. The average cost to produce x desks can be modeled by the function $C(x) = \dfrac{4000+50x}{x}$. How many desks should the company produce each month in order to achieve an average cost of $85 per desk?

ACT Review

1.   If $9(x - 9) = -11$, then $x = $?

A. $-\dfrac{92}{9}$

B. $-\dfrac{20}{9}$

C. $-\dfrac{11}{9}$

D. $-\dfrac{2}{9}$

E. $\dfrac{70}{9}$

2.   Discount tickets to a basketball tournament sell for $4.00 each. Enrico spent $60.00 on discount tickets, $37.50 less than if he had bought the tickets at the regular price. What was the regular ticket price?

F. $ 2.50
G. $ 6.40
H. $ 6.50
J. $ 7.50
K. $11.00

3.   The expression $(3x - 4y^2)(3x + 4y^2)$ is equivalent to:

A. $9x^2 - 16y^4$
B. $9x^2 - 8y^4$
C. $9x^2 + 16y^4$
D. $6x^2 - 16y^4$
E. $6x^2 - 8y^4$