

# Assignment #4-1

# Secondary 3 Honors

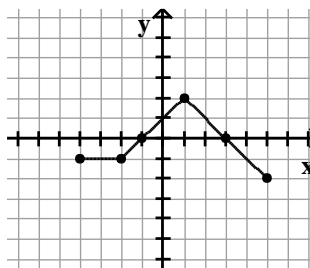
**Carnegie Book:** Make sure you list the domain restrictions for each problem.

Pg. 607 #3(a - d)

Pg. 609 #7(a - d)

**Additional Problems:** Complete these problems on a separate sheet of paper.

1. Simplify:                      a.  $\frac{\frac{2}{x-3}}{\frac{4x}{2x-6}}$                       b.  $\frac{(x+1)(x-2)^3(4x-3)}{(x+1)^2(x-2)^2}$
2.                      a.  $\frac{x+1}{x} \cdot \frac{x^2}{2x+2}$                       b.  $\frac{x+3}{x-5} \cdot \frac{1}{x^2+6x+9} \cdot (x^2 - 25)$                       c.  $\frac{x^2+4x+3}{2x^2-11x+5} \div \frac{x^2+3x}{2x-1}$
3. Given the graph of  $f(x)$ , graph the following on separate axis:
- a.  $-f\left(\frac{x}{2}\right)$                       b.  $f(|x + 1|)$
- c.  $f(x - 1) + 2$                       d.  $2f(-x)$
4. Given  $f(x) = 14x - 3$  and  $g(x) = 8x^2$  find:
- a.  $(f + g)(-4)$                       b.  $(g(f(x)))$



## ACT Review

1. The weekly fee for staying at the Pleasant Lake Campground is \$20 per vehicle and \$10 per person. Last year, weekly fees were paid for  $v$  vehicles and  $p$  persons. Which of the following expressions gives the total amount, in dollars, collected for weekly fees last year?
- A.  $20v + 10p$   
B.  $20p + 10v$   
C.  $10(v + p)$   
D.  $30(v + p)$   
E.  $10(v + p) + 20p$
2. If  $r = 9$ ,  $b = 5$ , and  $g = -6$ , what does  $(r + b - g)(b + g)$  equal?
- F. -20  
G. -8  
H. 8  
J. 19  
K. 20
3. A copy machine makes 60 copies per minute. A second copy machine makes 80 copies per minute. The second machine starts making copies 2 minutes after the first machine starts. Both machines stop making copies 8 minutes after the first machine started. Together, the 2 machines made how many copies?
- A. 480  
B. 600  
C. 680  
D. 720  
E. 960