Accelerated Alg. II

Polynomial Addition & Subtraction with Function Notation

Find $\left(f+g\right)\left(x\right)$ and $(f-g)(x)$.

1. $f\left(x\right)=2x$

 $g\left(x\right)=-4x+5$

2. $f\left(x\right)=x-1$

 $g\left(x\right)=5x-2$

3. $f\left(x\right)=-x^{2}+6$

 $g\left(x\right)=2x^{2}+3x-5$

4. $f\left(x\right)=3x^{2}-4$

 $g\left(x\right)=x^{2}-8x+4$

5. Using the functions from #1, find $(f+g)(3)$

6. Using the functions from #3, find $(f-g)(2)$

7. The number of men and women age 16 and over employed each year in the U.S. can be modeled by the following equations, where *x* is the number of years since 1994 and *y* is the number of people in thousands:

Women: $y=1086.4x+56,610$ Men: $y=999.2x+66,450$

a) Write a function that models the total number of men and women employed in the U.S. during this time.

b) If *f* is the function for the number of men, and *g* is the function for the number of women, what does $(f-g)(x)$ represent?