**HW Answers: Operations with Functions**

1. 3x – 2
2. x + 4
3. $2x^{2}-5x-3$
4. $\frac{2x+1}{x-3}$, x ≠ 3
5. $\frac{8x^{4}+1}{x^{2}}$, x ≠ 0
6. $\frac{8x^{4}-1}{x^{2}}$, x ≠ 0
7. 8, x ≠ 0
8. $8x^{4}$, x ≠ 0
9. $2x^{2}+7x+3$
10. $2x^{2}+7x+3$
11. $x^{4}+7x^{3}+3x^{2}-63x-108$
12. $-\frac{2}{5}$
13. See below
	1. $f\left(1\right)+g\left(1\right)=8+0=8$
	2. f(0)/g(0)=7/-7= -1
	3. f(1)/g(1)=8/0=undefined
	4. 5-(7)=-2
	5. 2g(-1)+f(-1)=2(-14)+6= -22
14. See below
	1. f(1)+g(1)=0.5+4 = 4.5
	2. f(1)\*g(1)=0.5(4)=2
	3. 2-4= -2
	4. 2g(3)+f(3)=0+1.5= 1.5
15. $C\left(x\right)=1150-0.011x^{2}$
16. $P\left(x\right)=4x^{2}-8x-125$