LAGUARDIA COMMUNITY COLLEGE
Department of Mathematics, Engineering, and Computer Science
MAT 095 – Introduction to Algebra
Lab #3

1. Simplify using the order of operations.
   a) $-2(3-6)+10$
   b) $-7+(1-5)^2 \div 4$
   c) $[(-8)^2-5^2] \div (-4+1)$
   d) $|-10+13|-|-6|$

2. Simplify the following expressions.
   a) $6x-3x$
   b) $-9x-6x$
   c) $2a-3b+5a$

3. Evaluate the expression $3+8x-5x^2$ for $x=-2$.

4. Translate *"Six more than the product of 12 and Victor's score"* into an algebraic expression. Use variable v to represent Victor's score.

5. Solve the following equations for the given variable and simplify your answer as much as possible.
   a) $5w=95$
   b) $5w+12=102$
   c) $2(2u+9)=50$

6. Erick kept $6,000 in his checking account for three years. Interest of $400 was credited to his account at the end of the first year, interest of $450 at the end of the second year, and $500 at the end of the third year. At the end of three years he wrote a check for $3,142. Find the balance in his account.

Extra Practice Problems: (Optional)

1. Simplify using the order of operations.
   a) $-4(1-3)-8$
   b) $-5+(3-10)^2$
   c) $[7^2-9^2]\div(-5+1)$
   d) $4+2[9+(-4+12)]$

2. Simplify the following expressions.
   a) $4t+3s-s-9t$
   b) $x^2+2x-3+4x-5x+9$
   c) $3b(a-2b+1)$
   d) $-2x(x-y+1)$
   e) $2(x-4)-3(7-x)$

3. Solve the following equations for the given variable and simplify your answer as much as possible.
   a) $2(x+3)=2$
   b) $6(x+1)=24$
   c) $-2(x+3)-3(2-x)=-19+23$
   d) $4x-2(7-x)-5x=-18$

4. Translate the sentence, *"The sum of a number times 7 and 9 is equal to 3"* into an equation. Use variable x for the unknown number.