**LT #6: Function Operations**
Perform the indicated operation. (2 pts each)
Let $f\left(x\right)=2x-1$ and $g\left(x\right)=x^{2}+3x.$

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Domain: { }

5. Domain: { }

1. $(f-g)(2)$ 2. $(f∙g)(x)$ 3. $\left(\frac{g}{f}\right)(4)$

Find the domain restrictions, and then state the domain in set notation. (2 pts)

4. $f\left(x\right)=\sqrt{3x-9}$ 5. $f\left(x\right)=\frac{x+1}{x^{2}-4}$

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**LT #7: Inverse Relations/Functions**Find the inverse of the given functions. Determine if the answer to #1
is also a function. (2 pts each)

1. Points on the inverse:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Is the inverse a function?

 \_\_\_\_\_\_\_\_\_\_

2. $f^{-1}(x)=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. $\left\{\left(4,3\right),\left(-2,7\right),\left(0,3\right),(-1,-1)\right\}$ 2. $f\left(x\right)=-\frac{1}{2}x+3$

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