**HW: Operations with Functions – Part II Division**

**Simplify the following Rational Expressions**

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|  | 2. |

Perform the operations when  and *g*(*x*) = 3*x* – 2.

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| 3. | 4. |

Preform the operations when *f*(*x*) = 3*x* + 3 and *g*(*x*) = *x*2 – 1

|  |  |
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| 5. | 6. |

**State the domain of the following functions.** (Remember, the denominator may not equal zero!)

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| 7. | 8. |
| 9. | 10. |

Preform the operations with the given functions. Then state the domain.

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| 11. *f*(*g*(*x*)) *f*(*x*) = 6*x*-1, *g*(*x*) = 5*x* –2 | 12. *g* ○ *f*(*x*) *f*(*x*) = 2*x* + 9 and |