A2H **NAME**_____

Function Worksheet. **Period**_____

Evaluate each of the following operations on the functions.

F(x) = $2x^2 - 3x$ **G(x) = 4x - 10** **H(x) =** x^2

1. $(F \bullet G)(6)$
2. $H(G(x))$
3. $(F + H)(x)$
4. $(H \bullet G)(x)$
5. $G(F(3))$
6. $F(H(4))$
7. $H(F(x))$
8. $\left(\frac{F}{H}\right)(10)$

Find each of the following $f(x) = 4x - 3$ $g(x) = x^2 + x$

9. $(g \circ f)(x)$
10. $(g - f)(5)$
11. $g(f(3))$
12. $(f \times g)(x)$
13. $f(g(x))$

Basic functions. Evaluate each of the following.

14. $f(x) = 6x^2 + 2$
    $f(5)$
15. $f(x) = x^3 - 2x^2 + 3x - 10$
    $f(-2)$
16. $f(x, y) = x^2 - y^2$
    $f(-1,3)$

Find the inverse for each of the following functions

17. $f(x) = 8x + 3$
18. $f(x) = x^2 + 5$
19. $f(x) = \frac{x+7}{6}$

Find each of the following $f(x) = 2x - 1$ $g(x) = x^2$

20. $(f \div g)(4)$
21. $(g - f)(5)$
22. $g(f(3))$
23. $(f \times g)(x)$
24. $f(g(x))$
25. $(f + g)(x)$

[redacted]

$f(A) = B$ $f(B) = C$ $f(C) = A$

$g(A) = C$ $g(C) = B$ $g(B) = A$

26. $f^{-1}(C)$
27. $g(f(B))$
28. $g(g^{-1}(A))$
29. $g^{-1}(C)$