

Operations & Functions
(PFEMDAS)

Name: _____

NOTE: PFEMDAS is an extension of PEMDAS. It stands for the order of operations, which are: **P**arentheses, **F**unctions, **E**xponents, **M**ult/**D**iv, **A**dd/**S**ub.

Use the below functions to answer the following questions:

$$f(x) = 2x^2 + 3x - 4 \quad g(x) = \frac{3x^3}{2x^2} \quad h(x) = 2x - 5 \quad j(x) = 2x^{-1} + 7$$

1.) Which of the above are polynomial functions? _____ Which are linear functions? _____ Which are quadratic functions? _____ Which functions will form a parabola? _____

2.) $f(-1) =$ _____

3.) $g(-2) =$ _____

4.) $5f(-1) - 4g(-2) =$ _____ (HINT: use PFEMDAS)

5.) $j(3) + 2h(2) =$ _____

6.) $f^2(3) =$ _____ (NOTE: when raising a function by a positive exponent, the exponent often goes between the letter for the function and the number)

7.) $h^2(2^3) =$ _____ (REMEMBER: **PF**EMDAS, do 2^3 first! Then evaluate $h^2(8)$)

8.) $f^2(3) - h^2(2^3) =$ _____

9.) $f^2(3 - 1) - h^2(2^3 - 7) =$ _____