Extra Credit: Function Operations & Composition

(You can earn up to 8 quiz points through completing this activity.)

★ f(x) is defined as $3x^2 - 2$. Determine any possible function for each case below.

Case 1:
$$(f + g)(x) = 2x^2 - 1$$

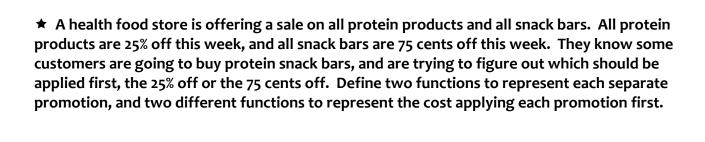
Case 2:
$$(f - h)(3) = 8$$

Case 3:
$$f(x)*j(x) = -2$$

Case 4:
$$(k/f)(x) = -\frac{1}{2}$$

Case 5:
$$(f \perp m)(x) = 3x^6 - 2$$

Case 6:
$$(n \perp f)(x) = 4$$



★ For which original prices of protein bars would it benefit the health food store to apply the 25% promotion first? Explain.