

Name ANSWER KEY

\_\_\_\_\_points

Simplify:

$$\frac{(6x+1)^3(27x^2+2) - (9x^3+2x)(3)(6x+1)^2(6)}{(6x+1)^6}$$

$$= \frac{\cancel{(6x+1)^2} [(6x+1)(27x^2+2) - 18(9x^3+2x)]}{(6x+1)^{\cancel{6}-4}}$$

$$= \frac{\cancel{162}x^3 + 12x + 27x^2 + 2 - \cancel{162}x^3 - 36x}{(6x+1)^4}$$

$$= \boxed{\frac{27x^2 - 24x + 2}{(6x+1)^4}}$$