

### 10350 Rational Functions - Sample Questions Set 03

1. Completely simplify the following expression:

$$\frac{(x+4)^2 \cdot 2 - (2x+1) \cdot 2(x+4)}{(x+4)^4} \underline{\underline{?}}$$

2. Let  $f(n) = \frac{(-2)^n(x+2)^{2n+1}}{3n-5}$ . Find and simplify the expression  $\frac{f(n+1)}{f(n)}$ .