Class Drill 10: Don’t Forget the Easy Derivative Rules Part II

[1] Let \( f(x) = \frac{7}{x + 5} \)
(A) Find \( f'(x) \), using the Quotient Rule.

(B) Start over. Find \( f'(x) \) again, but this time do not use the Quotient Rule. Instead, start by rewriting \( f \) as a constant times a term in parentheses raised to a power. Then use the Constant Multiple rule and the Chain Rule.

[2] Let \( g(x) = -\frac{7}{(x + 5)^2} \)
(A) Find \( g'(x) \), using the Quotient Rule.

(B) Start over. Find \( g'(x) \) again, but this time do not use the Quotient Rule. Instead, start by rewriting \( g \) as a constant times a term in parentheses raised to a power. Then use the Constant Multiple Rule and the Chain Rule.