Correct. Factor the numerators and denominators. Regroup common factors in the same fraction and reduce to 1. Multiply simplified expressions.

$$\frac{x^2 + 5x - 24}{x^2 - 81} \cdot \frac{x + 9}{x - 3} = \frac{(x + 8)(x - 3)}{(x - 9)(x + 9)} \cdot \frac{x + 9}{x - 3}$$

$$= \frac{x - 3}{x - 3} \cdot \frac{x + 9}{x + 9} \cdot \frac{x + 8}{x - 9} = 1 \cdot 1 \cdot \frac{x + 8}{x - 9} = \frac{x + 8}{x - 9}$$