ID. #:

Q1. Using n subintervals with right endpoints show that

$$\int_{2}^{5} (x^{2} - 4) dx = \lim_{n \to \infty} \left[\frac{18(n+1)}{n} + \frac{9(n+1)(2n+1)}{2n^{2}} \right]$$

(Show all your work for full credit)