Name: Section: 1 2

1. Evaluate the integral $\displaystyle\int_1^\infty \frac{3}{(2x+3)(2x+1)}\,dx$

2. Write out the first 5 values of each of the following sequences.

   (a) $\left\{\dfrac{2n-1}{2^n}\right\}$

   (b) The recursive sequence given by the relation $a_{n+1} = 100 + 2a_n$ where $a_1 = 1$.

3. Find the limit of the following sequences. Always use common limits whenever you can.

   (a) $\left\{\left(1 - \dfrac{4}{n}\right)^n\right\}$

   (b) $\left\{\dfrac{3(1-(1/2)^n)}{1-(1/2)}\right\}$