MTH 132.12 Quiz 10
Friday 8 April 2011

Name:

Show *all* your work. Points will be deducted for incomplete work. No calculators are allowed.

1. Write the following sums using Σ notation.

   (a) $2 + 5 + 8 + 11 + 14 + 17 + 20$

   (b) $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6} + \frac{1}{7} + \frac{1}{8}$

2. Suppose $\sum_{k=1}^{n} a_k = 2$ and $\sum_{k=1}^{n} b_k = 3$.

   (a) What is $\sum_{k=1}^{n} (2a_k + b_k)$?

   (b) What is $\sum_{k=1}^{n} (b_k + 1)$?

3. What is $\int_{1}^{5} \sqrt{16 - (x-1)^2}\,dx$? (*Hint.* The graph $y = \sqrt{16 - (x-1)^2}$ is a familiar shape.)