Math 60, Quiz 2.

Show all your work for full credit.

1. \[\int_{-1}^{1} x^3 + 2x - 1 \, dx\]

2. Let \( f(x) = |x| - 1 \).
   
   (a) Sketch the graph \( y = f(x) \). Label the points where the graph crosses the \( x \) and \( y \) axes.

   (b) Compute the following integrals
   
   i. \[\int_{0}^{1} |x| - 1 \, dx\]
   ii. \[\int_{1}^{2} |x| - 1 \, dx\]
   iii. \[\int_{0}^{2} |x| - 1 \, dx\]