Math 182 $\qquad$ **Quiz** 6 $\qquad$ **Name:** $\underline{\hspace{3cm}}$

February 18, 2003

Multiple Choice. Circle the correct evaluation of the following integrals:

1. $\displaystyle\int_0^\infty \frac{2x\,dx}{(x^2+1)^2}$

    (a) 0

    (b) 1

    (c) -1

    (d) Divergent

    (e) None of the above

2. $\displaystyle\int_2^\infty \frac{dx}{x^{1/4}}$

    (a) 2

    (b) $\frac{\sqrt{2}}{2}$

    (c) 0

    (d) Divergent

    (e) None of the above

3. $\displaystyle\int_0^2 \frac{dx}{\sqrt{|x-1|}}$

    (a) 4

    (b) 0

    (c) 2

    (d) $2\sqrt{2}$

    (e) Divergent

    (f) None of the above