

Instructions: Write up ALL of your work, showing all steps except things you can easily do in your head. When in doubt, WRITE IT OUT. Make sure that your work is clear and easily legible. Illegible work will not be graded. This assignment is due at the start of class on Wednesday 8 November. In order for you to receive additional points on Test 2, your work must be handed in on time and be completely correct.

- 5) Find the value of the integral or show that it diverges:

$$\int_{-2}^3 \frac{dx}{(x-1)^2}$$

- 6) Use a comparison test to determine whether or not the integral converges: you must use an appropriate comparison test. DO NOT try to evaluate the integral.

$$\int_1^{\infty} \frac{dx}{\sqrt{x^2 + 5x}}$$