

# Calculus Quiz

Your Name:

1.  $\int_4^{\infty} \frac{x}{x^2 - 7} dx$

2.  $\int_{-\infty}^{-2} \frac{12}{x^3} dx$

3.  $\int_{-10}^0 (x + 2)^{-1/3} dx$

over >>

4. You wish to find the length along the curve  $y = -x^4 + 3x^3 - x$  between  $x = -1$  and  $x = 3$ .

a. Write out the integral that will give you this length.

b. Then use the trapezoidal rule to approximate this length to **five significant digits** using a subinterval width of 0.5

5. Use the shell method to find the volume of the solid formed by revolving about the line  $x = -7$  the area bounded by:

$$y = \frac{1}{10}x^3 - x + 4$$

$$x = -3$$

$$x = 5$$

$$y = 0$$