

Name: _____ Section Day and Time: _____

Complete the following problems, making sure to SHOW ALL WORK. If you're stuck on something, CLEARLY EXPLAINING what you do know or what you would do will get you partial credit!

1. (a) Calculate the following integral.

$$\int \frac{x^2 + x - 2}{3} dx$$

- (b) Why does the same trick not work for

$$\int \frac{3}{x^2 + x - 2} dx?$$

- (c) Calculate the integral

$$\int \frac{1}{x-1} - \frac{1}{x+2} dx.$$