Name: ______________________

1. Class notes for this week: This week we have covered Sections 5.5 and 4.5. Next week we will cover Section 5.1 and have two review periods.

2. Compute the integrals.
   
   (a) (2 points)
   
   $$\int \frac{\sec(12x) \tan(12x)}{\sqrt{\sec(12x)}} \, dx$$

   (b) (1 point)
   
   $$\int_{-\pi}^{\pi} \frac{\tan x}{x^4 + 2} \, dx$$

Question 3 is on the back
3. (a) (2 points) What is the average value of the function \( f(x) = x^2 + \sin(\frac{\pi}{4}x) \) over the interval \([0, 2]\)?