

NAME:

Math 105 - Quiz 8 - October 22, 2007

Instructions: Show all of your work and circle your final answers. Calculators are allowed, but notes and books are not.

1. (10 pts.) Let $f(x) = 3x + \sin x$. On what subinterval(s) in $[-5, 5]$ is $f(x)$ concave up? Find all inflection points of $f(x)$ in the interval $[-5, 5]$.

2. (10 pts.) Let $g(x) = \frac{\ln x}{2x^3} + e^x \cos x$. Find $g'(x)$.