No graphing calculators are allowed on this quiz. Please read each question carefully, follow directions and clearly mark your solutions. Show your work for full credit and don't forget "+C"!

1. (3 points each) Find the indefinite integral and simplify your answer

$$\int x^2 + 6\sqrt{x} \, dx$$

$$\int \frac{12(\ln x)^3}{x} \, \mathrm{d}x$$