Answer all of the following questions in the space provided. Show all work as partial credit may be given. Answers without justification, even if they are correct, will earn no credit.

1. (2 pts.) Evaluate the following indefinite integrals.

   (a) $\int x^{5/2}\, dx$

   (b) $\int (x-1)(x+1)\, dx$

2. (2 pts. each) Evaluate the following definite integrals.

   (a) $\int_0^1 (3x^2 - 2x)\, dx$

   (b) $\int_1^3 \frac{1}{x}\, dx$

3. (3 pts.) Find the area of the region bounded by the curve $y = x^2$ and the x–axis between $x = 1$ and $x = 4$.