Name:

There are three problems (one on the back).

Compute the following integrals. Give an exact answer where possible (i.e., no need to approximate with a decimal).

1. (3 pts) $\int \cos^3(x)\sin(x)dx$

2. (4 pts) $\int xe^x dx$

(3 pts) $\displaystyle\int \frac{x^2}{\sqrt{1-x^2}}dx$