Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Evaluate the improper integral 
$$\int_{5}^{\infty} \frac{3}{(3x-1)^7} dx$$
.

2. Evaluate the improper integral  $\int_{-\infty}^{0} \frac{x^4}{(x^5-1)^2} dx$ .