(1)[**5 points**] Marginal cost is given by

$$\frac{dc}{dq} = 0.09q^2 - 1.2q + 4.5 \ .$$

If fixed costs are $7700, find $c(200)$.

(2)[**5 points**] Evaluate

$$\int 2\sqrt{x} - 3\sqrt[4]{x} \ dx$$

(3)[5 points] Evaluate

$$\int \frac{x}{x^2 + 1} + \frac{x^5}{(x^6 + 1)^2} \, dx$$