Name:

1. Solve the initial value problem: $f^{\prime}(x)=1+\frac{3}{2} \sqrt{x}, f(1)=4$.
2. Evaluate the indefinite integral

$$
\int \frac{x^{2}}{\left(2-x^{3}\right)^{2}} d x
$$

(you may want to check your answer by differentiating).

