

Name: _____

Evaluate each of the following integrals

1) $\int_0^1 (1 - x^9) dx$

2) $\int_1^9 \frac{\sqrt{x} - 2x^2}{x} dx$

3) $\int_0^{2\pi} \sin x - \cos x dx$

4) $\int \sec^2 x dx$

5) $\int \frac{1}{x^2+1} - \frac{1}{\sqrt{1-x^2}} dx$

6) $\int x^{1.3} + 7x^{2.5} dx$

7) $\int x^2 \sqrt{x^3 + 1} dx$

8) $\int \sin \frac{\pi x}{3} dx$

9) The velocity function for a given particle moving along a line is:
 $v(t) = t^2 - 2t - 3$. Find the displacement of the particle when $2 \leq t \leq 4$.

10) The velocity function for a given particle moving along a line is:
 $v(t) = t^2 - 2t - 3$. Find the distance the particle traveled when $2 \leq t \leq 4$.