

Name \_\_\_\_\_

1. Compute the derivative of each function.

(a)  $f(x) = \cos(\sqrt{x})$

(b)  $f(x) = \frac{2x + 1}{3x - 4}$

2. Compute each integral below.

(a)  $\int x\sqrt{x^2 + 1} dx$

(b)  $\int xe^x dx$