Worksheet 1
1/30/2023

Evaluate the following integrals using the substitution rule.

1. $\int \sin(3x - 1)\, dx$ with $u = 3x - 1$

2. $\int x \cos(x^2 + 1)\, dx$ with $u = x^2 + 1$

3. $\int \frac{\cos x}{\sin^2 x}\, dx$ with $u = \sin x$

4. $\int \frac{1}{(2x-5)^4}\,dx$

5. $\int_1^2 x\sqrt{x-1}\,dx$

6. $\int_0^1 \sqrt[3]{1+7x}\,dx$