Lecture 19: Worksheet

Fundamental theorem

Find the following integrals

1 $\int_1^3 x^3 \, dx$

2 $\int_{-2}^1 1 - x^5 \, dx$

3 $\int_0^1 \frac{1}{x^2+1} \, dx$

4 $\int_2^4 \frac{1}{x} \, dx$

Now a bit harder ones:

5 $\int_1^4 x^{1/3} \, dx$

6 $\int_1^3 \sqrt{1 + x^5} \, dx$

7 $\int_1^2 \frac{1}{\sqrt{x}} + \frac{5}{x^2} \, dx$

8 $\int_1^2 \frac{1}{1+x^5} \, dx$