

Integration by Parts

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

1. Find:

$$\int x \cos(x) dx$$

$$\int (3x + 1) \sec^2(x) dx$$

$$\int x^2 \sin(\pi x) dx$$

2. Find:

$$\int_1^2 \frac{\ln(y)}{\sqrt{y}} dy$$

$$\int_{\sqrt{\frac{\pi}{2}}}^{\sqrt{\pi}} \theta^3 \cos(\theta^2) d\theta$$

$$\int_0^1 5^t \sin(5^t) dt$$