

Evaluate the following integrals.

1.  $\int_0^4 2x \, dx$

4.  $\int_{-1}^1 x^3 \, dx$

2.  $\int_{-1}^0 2x \, dx$

5.  $\int_0^\pi \cos(x) \, dx$

3.  $\int_{-1}^4 2x \, dx$

6.  $\int_2^0 x + 2 \, dx$