

Evaluate the integrals by sketching the appropriate region

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

5. $\int_{-5}^2 3x + 6 \, dx$

9. $\int_{-2}^2 \sqrt{4 - x^2} \, dx$

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

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

10. $\int_0^t 3 \, dx$

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

7. $\int_0^{\pi} \cos(x) \, dx$

11. $\int_0^t 2x \, dx$

4. $\int_0^3 -x + 2 \, dx$

8. $\int_{-\pi/2}^{\pi/2} \sin(x) \, dx$