

HW 4.3

Evaluate the following definite integrals.

$$1. \int_0^3 (2x - 1) dx$$

$$2. \int_0^2 (4 - x) dx$$

$$3. \int_1^2 (4t - 5) dt$$

$$4. \int_{-3}^0 (x^2 + 2x - 2) dx$$

$$5. \int_{-2}^2 (s^3 - 3s^2 + 2) ds$$

$$6. \int_1^2 \frac{dx}{x}$$

$$7. \int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \cos \theta d\theta$$

$$8. \int_0^{\pi} \sin \alpha d\alpha$$

Find the area under the graph f from a to b .

$$9. f(x) = 4 - x; a = -1, b = 2$$

$$10. f(x) = 5 - 3x^2; a = -2, b = 2$$

$$11. f(x) = x^2 - 4x; a = 0, b = 4$$

$$12. f(x) = 3x^3 - 4x^2; a = 1, b = 2$$