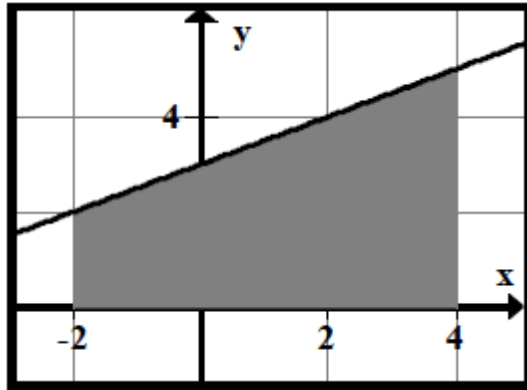
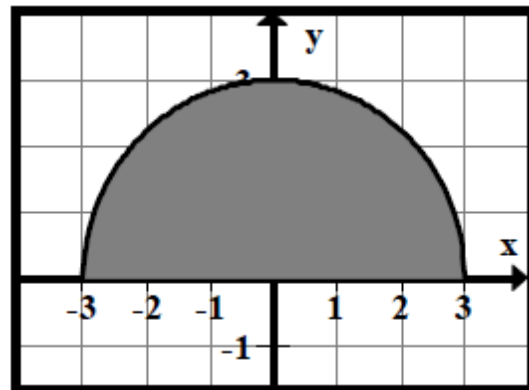
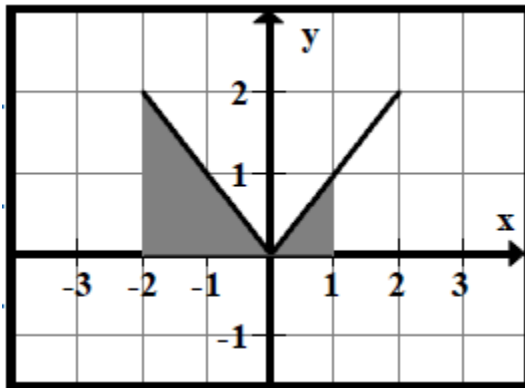




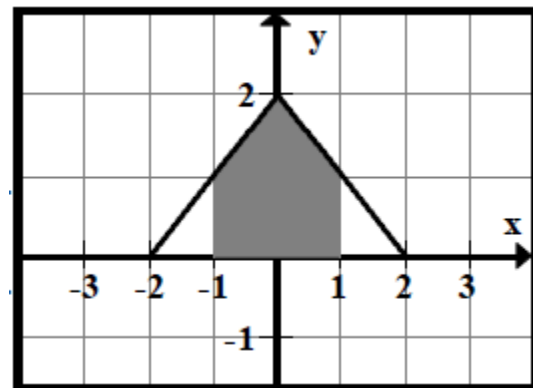
$$\int_{-2}^4 f(x) dx$$



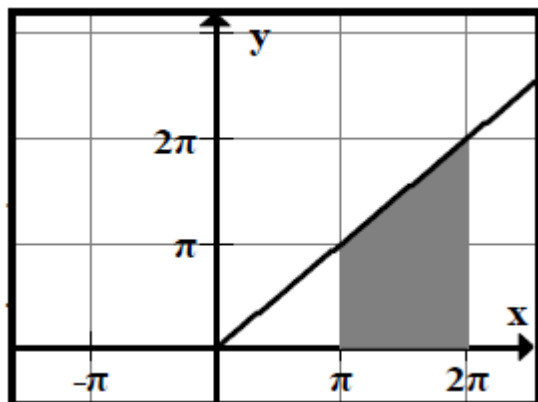
$$\int_{-3}^3 f(x) dx$$



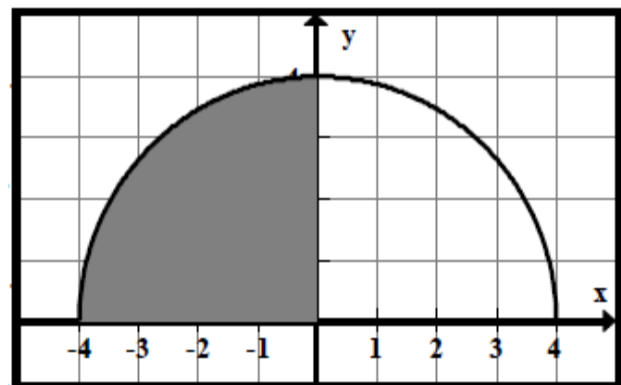
$$\int_{-2}^2 f(x) dx$$



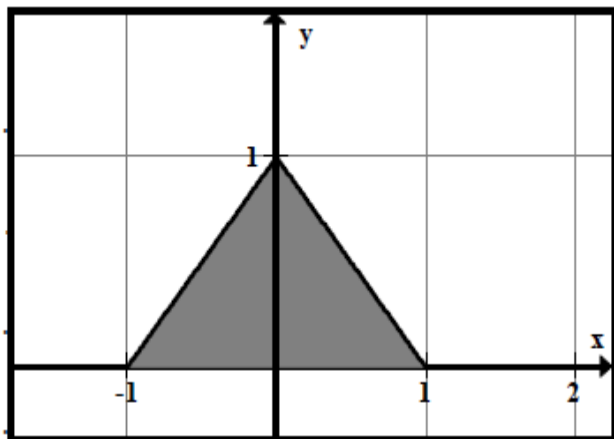
$$\int_{-2}^2 f(x) dx$$



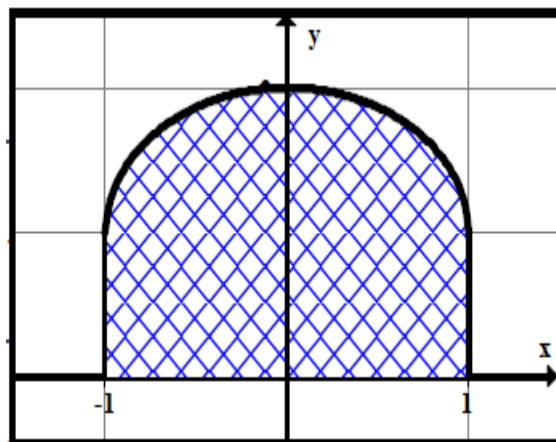
$$\int_{\pi}^{2\pi} f(x) dx$$



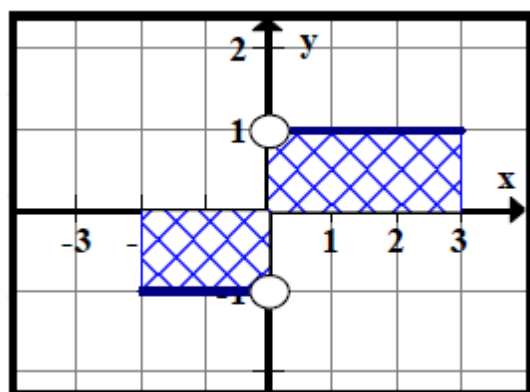
$$\int_{-4}^0 f(x) dx$$



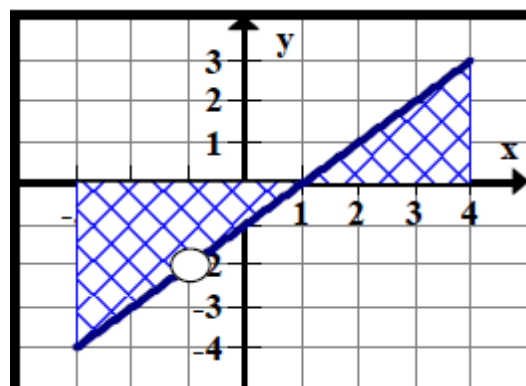
$$\int_{-1}^1 f(x) dx$$



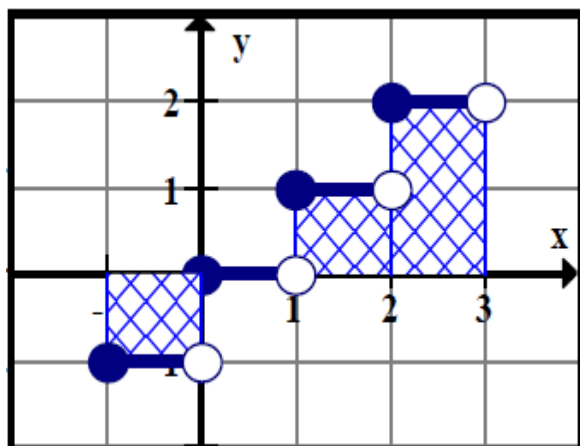
$$\int_{-1}^1 f(x) dx$$



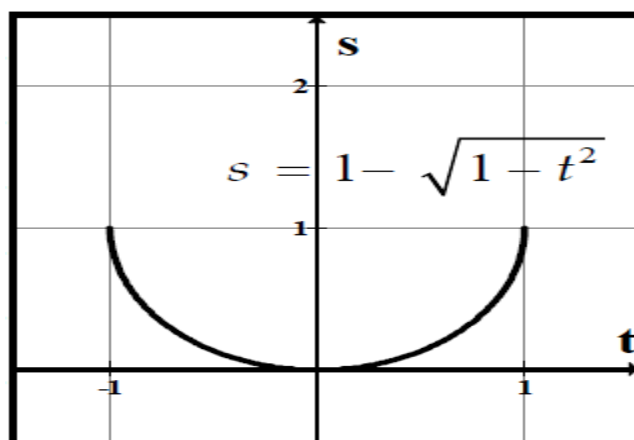
$$\int_{-2}^3 f(x) dx$$



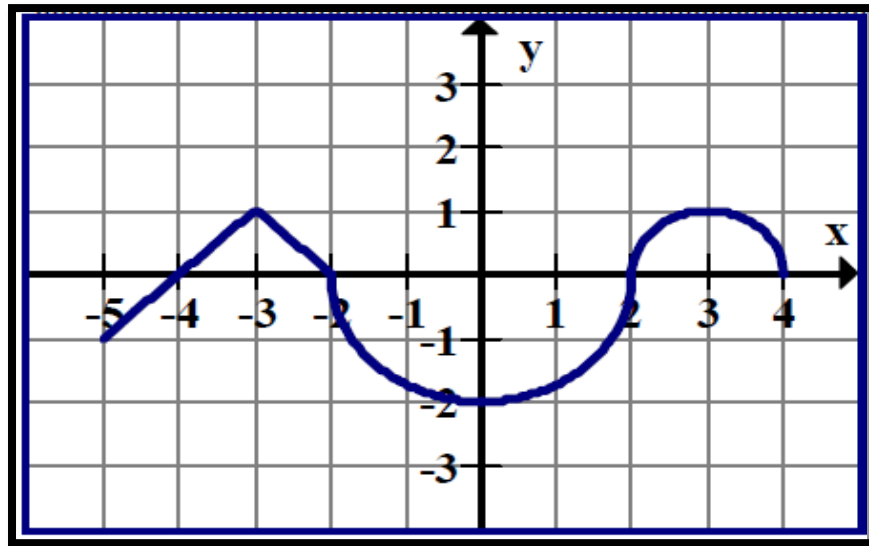
$$\int_{-3}^4 f(x) dx$$



$$\int_{-1}^3 f(x) dx$$



$$\int_{-1}^1 f(x) dx$$

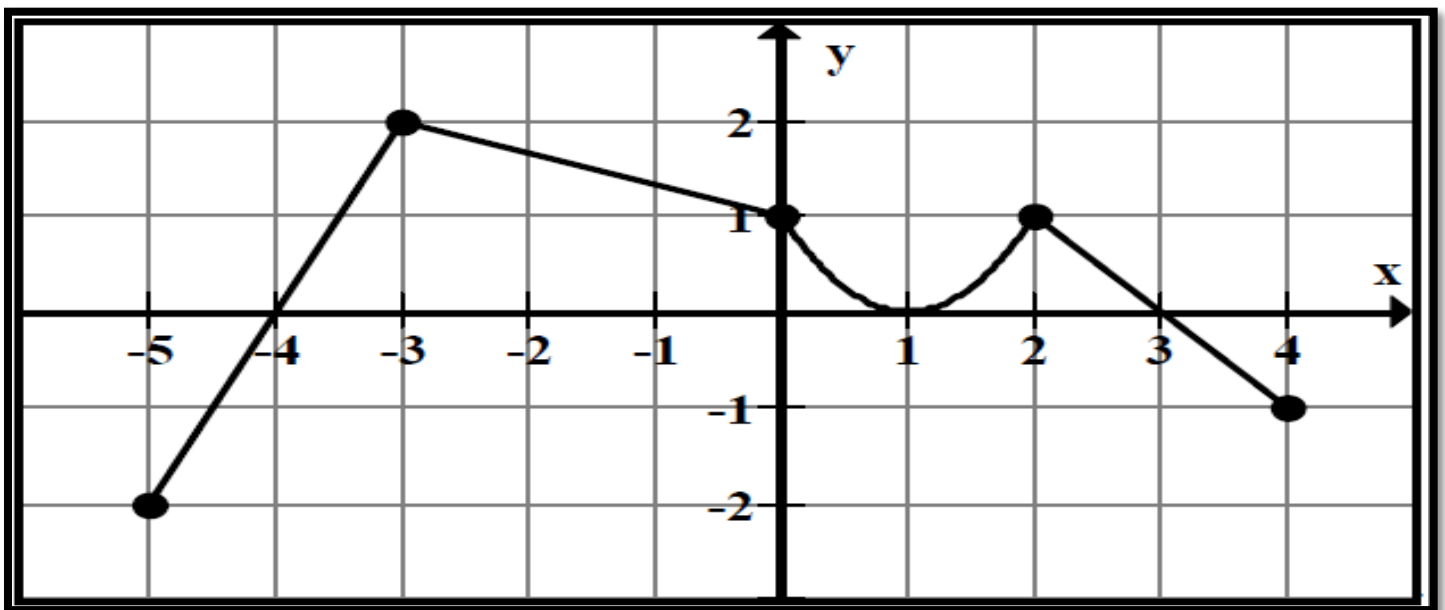


$$\int_{-2}^4 f(x) dx$$

$$\int_{-3}^3 f(x) dx$$

$$\int_{-5}^4 f(x) dx$$

$$\int_{-4}^0 f(x) dx$$

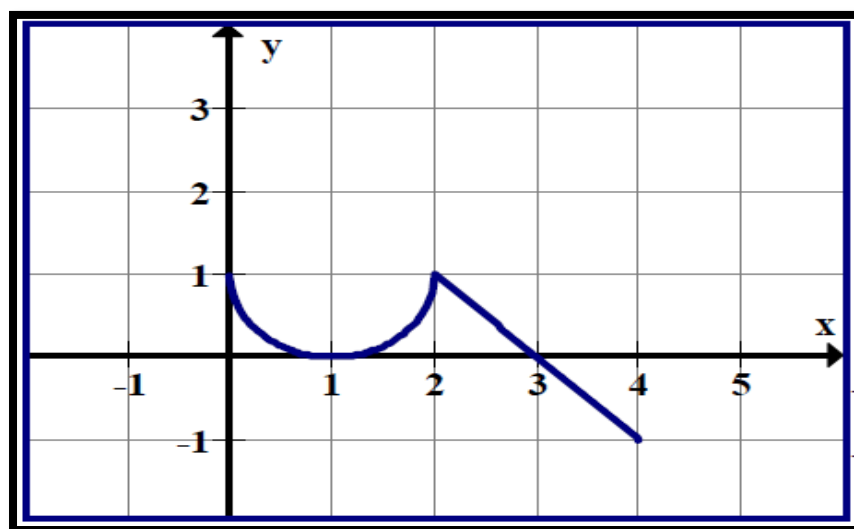


$$\int_{-5}^{-3} f(x) dx$$

$$\int_{-3}^2 f(x) dx$$

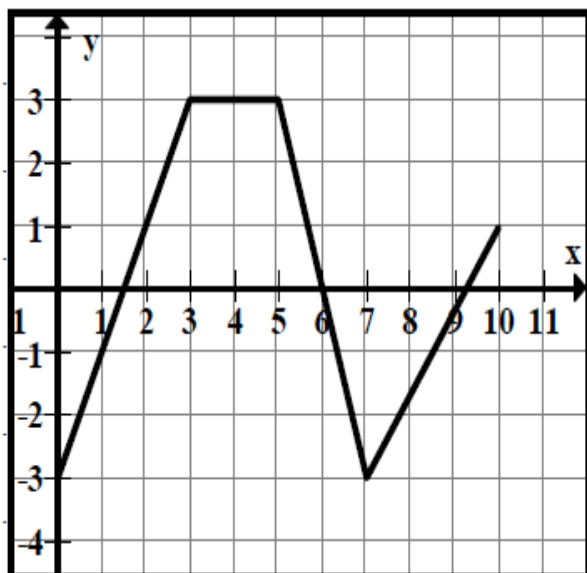
$$\int_0^4 f(x) dx$$

$$\int_{-5}^4 f(x) dx$$

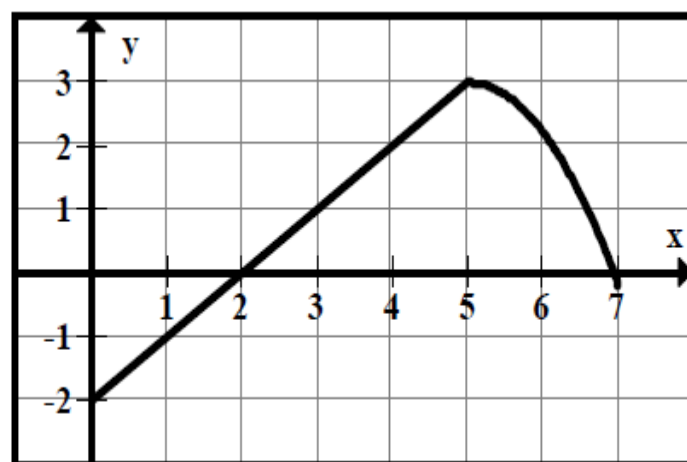


$$\int_2^4 f(x) dx$$

$$\int_0^4 f(x) dx$$

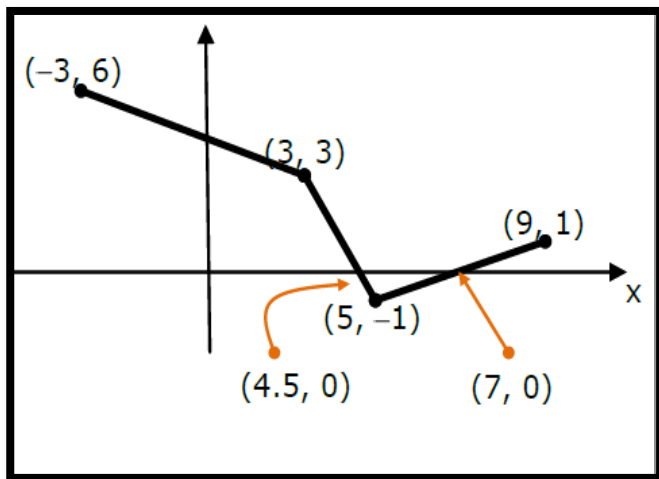
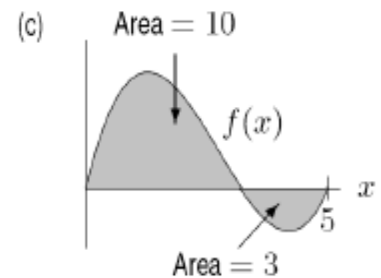
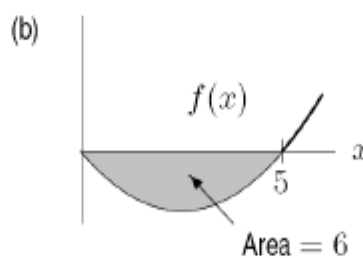
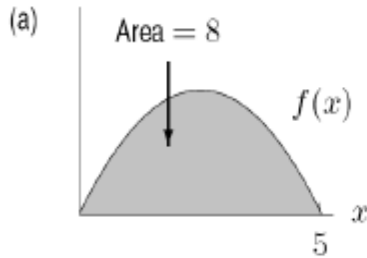


$$\int_0^{10} f(x) dx$$

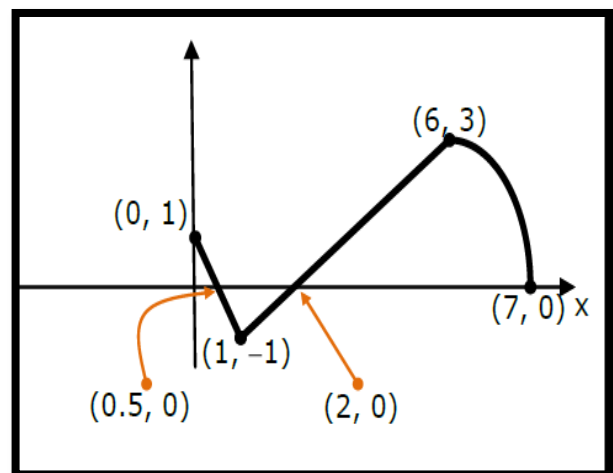


$$\int_0^7 f(x) dx$$

In each case below, find $\int_0^5 f(x) dx$.



$$\int_{-3}^9 f(x) dx$$



$$\int_0^7 f(x) dx$$

Evaluate the integral

$$\int_0^3 \sqrt{9 - x^2} dx,$$

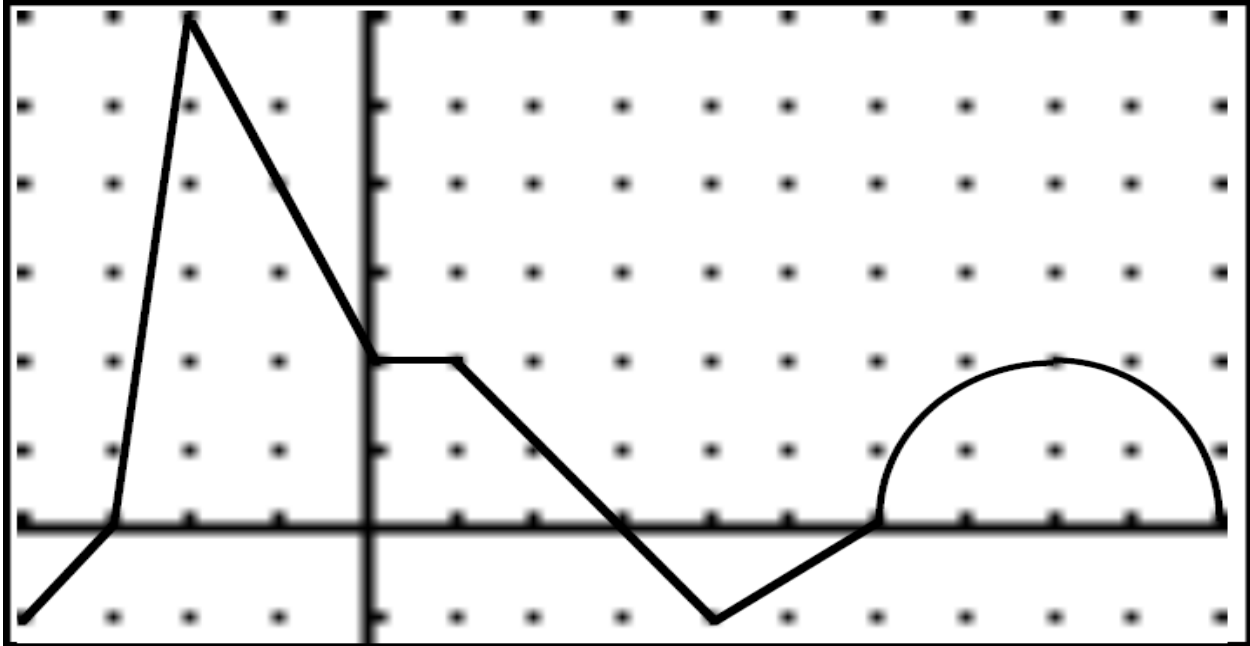
interpreting it as an area.

- A. 18
- B. 9π
- C. $\frac{9\pi}{2}$
- D. $\frac{9\pi}{4}$

Find the value of the integral

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

- A. 8
- B. 4
- C. 2
- D. 1



$$1. \int_{-4}^4 f(t) dt = 0$$

$$2. \int_0^1 f(t) dt = 2$$

$$3. \int_1^3 f(t) dt = 2$$

$$4. \int_0^3 f(t) dt = 4$$

$$5. \int_3^6 f(t) dt = -1.5$$

$$6. \int_6^3 f(t) dt = 1.5$$

$$7. \int_0^6 f(t) dt = 2.5$$

$$8. \int_6^{10} f(t) dt = 2\pi$$

$$9. \int_{10}^6 f(t) dt = -2\pi$$

$$10. \int_0^{10} f(t) dt = 2.5 + 2\pi$$

$$11. \int_{10}^0 f(t) dt = -2.5 - 2\pi$$

$$12. \int_{-1}^0 f(t) dt = 3$$

$$13. \int_{-3}^0 f(t) dt = 11$$

$$14. \int_0^{-3} f(t) dt = -11$$

$$15. \int_{-4}^{-3} f(t) dt = -.5$$

$$16. \int_{-4}^0 f(t) dt = 10.5$$

$$17. \int_{-4}^{10} f(t) dt = 13 + 2\pi$$

$$18. \left| \int_0^{10} f(t) dt \right| = 2.5 + 2\pi$$

$$19. \int_0^{10} |f(t)| dt = 5.5 + 2\pi$$

$$20. \left| \int_{-4}^{10} f(t) dt \right| = 13 + 2\pi$$

$$21. \int_{10}^{-4} |2f(t)| dt = -34 - 4\pi$$

Suppose $\int_{-2}^5 f(x) dx = 18$, $\int_{-2}^5 g(x) dx = 5$, $\int_{-2}^5 h(x) dx = -11$, and $\int_{-2}^8 f(x) dx = 0$, find

22. $\int_{-2}^5 (f(x) + g(x)) dx = 23$

23. $\int_{-2}^5 [f(x) + g(x) - h(x)] dx = 34$

24. $\int_5^{-2} 4g(x) dx = -20$

25. $\int_{-2}^5 (g(x) + 2) dx = 19$

26. $\int_{-2}^5 (f(x) - 6) dx = -24$

27. $\int_0^7 h(x-2) dx = -11$

28. $\int_{-4}^3 g(x+2) dx = 5$

29. $\int_5^8 f(x) dx = -18$

30. $\int_1^8 [f(x-3) + 3] dx = 39$

Suppose that $\int_0^2 f(x) dx = 2$, $\int_1^2 f(x) dx = -1$, $\int_2^4 f(x) dx = 7$, evaluate the following:

25. $\int_1^4 f(x) dx = 6$

26. $\int_0^4 3f(x) dx = 27$

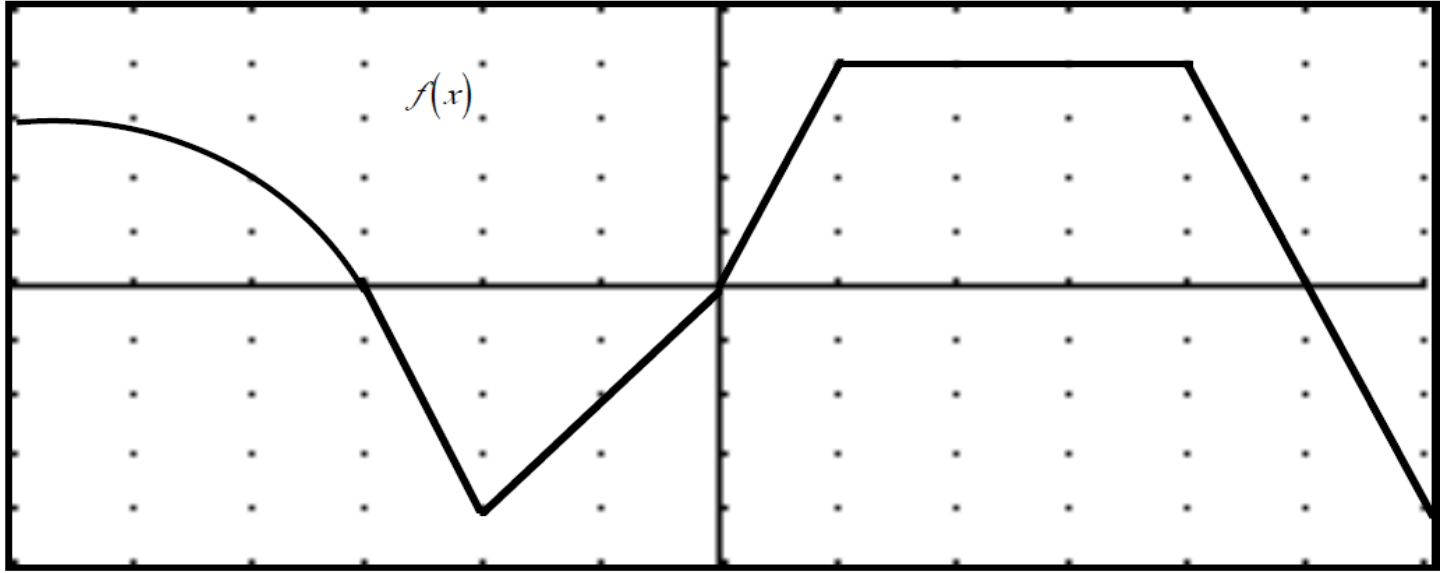
27. $\int_0^1 f(x) dx = 3$

28. $\int_0^1 f(x+1) dx = -1$

29. $\int_0^2 (f(x) + 3) dx = 8$

30. $\int_2^4 f(x-2) dx = 2$

31. If $\int_0^3 f(x) dx = -1$, find $\int_{-3}^3 f(x) dx$ if f is a) even -2 b) odd 0



1. $\int_0^1 f(x) dx = 2$

2. $\int_2^4 f(x) dx = 8$

3. $\int_1^4 f(x) dx = 12$

4. $\int_5^5 f(x) dx = 0$

5. $\int_4^5 f(x) dx = 2$

6. $\int_5^6 f(x) dx = -2$

7. $\int_4^6 f(x) dx = 0$

8. $\int_0^6 f(x) dx = 14$

9. $\int_3^2 f(x) dx = -4$

10. $\int_5^0 f(x) dx = -16$

11. $\int_6^0 f(x) dx = -14$

12. $\int_{-3}^0 f(x) dx = -6$

13. $\int_0^{-3} f(x) dx = 6$

14. $\int_{-3}^2 f(x) dx = 0$

15. $\int_4^{-3} f(x) dx = -8$

16. $\int_{-6}^{-3} f(x) dx = \frac{9\pi}{4}$

17. $\int_{-3}^{-6} f(x) dx = \frac{-9\pi}{4}$

18. $\int_{-6}^0 f(x) dx = \frac{9\pi}{4} - 6$

19. $\int_{-6}^6 f(x) dx = \frac{9\pi}{4} + 8$

20. $\int_6^{-6} f(x) dx = -\frac{9\pi}{4} - 8$

21. $\left| \int_{-2}^1 f(x) dx \right| = 2$

22. $\int_{-2}^1 |f(x)| dx = 6$

23. $\int_{-2}^1 |-f(x)| dx = 6$

24. $\int_{-6}^6 |f(x)| dx = \frac{9\pi}{4} + 24$