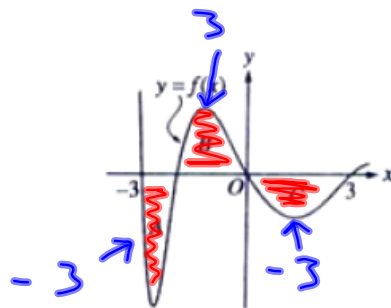


4.



The regions A, B, and C in the figure above are bounded by the graph of the function f and the x -axis. If the area of each region is 3, what is the value of $\int_{-3}^3 (f(x) + \cos x) dx$?

- A) -5.718
- B) -2.718
- C) .282
- D) 3.282
- E) 6.282

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

$$-3 + \sin x \Big|_{-3}^3$$

5.

Let g be the function given by $g(x) = \int_0^x \cos(et^2 - \pi) dt$ for $-1 \leq x \leq 1$. On which of the following intervals is g decreasing?

$$\cos(ex^2 - \pi) = 0$$

$$x = -.760 \text{ and } .760$$

- A) $-1 \leq x \leq -.760$
- B) $-.760 \leq x \leq .760$
- C) $.760 \leq x \leq 1$
- D) $-1 \leq x \leq 0$
- E) $0 \leq x \leq 1$