

J. For all real numbers x , the function $f(x)$ satisfies

$$6 + f(x) = 2f(-x) + 3x^2 \left(\int_{-1}^1 f(t) dt \right).$$

It follows that $\int_{-1}^1 f(x) dx$ equals

- (a) 4, (b) 6, (c) 11, (d) $\frac{27}{2}$, (e) 23.