

I. For a positive number a , let

$$I(a) = \int_0^a (4 - 2^{x^2}) dx.$$

Then $dI/da = 0$ when a equals

- (a) $\frac{1 + \sqrt{5}}{2}$, (b) $\sqrt{2}$, (c) $\frac{\sqrt{5} - 1}{2}$, (d) 1.