

5.2 Practice

Monday, January 26, 2015 6:46 AM

AP Calc AB  
Notes 5.2

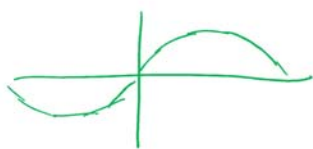
Name Key

DO NOT use a calculator to evaluate the following integrals. Rather, you should use your knowledge of graph transformations, area, and the given fact below to answer these problems.

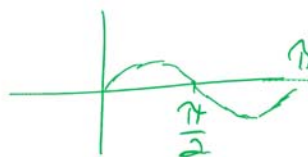
Given:  $\int_0^\pi \sin x dx = 2$



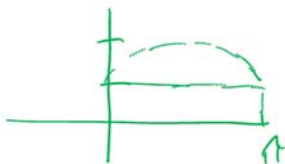
1.  $\int_{-\pi}^\pi \sin x dx = 0$



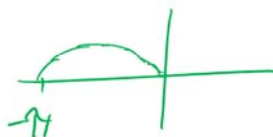
2.  $\int_0^\pi \sin(2x) dx = 0$



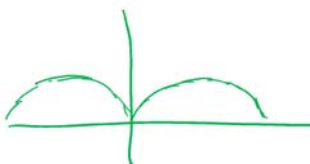
3.  $\int_0^\pi (\sin x + 1) dx = 2 + \pi$



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



5.  $\int_{-\pi}^\pi |\sin x| dx = 4$



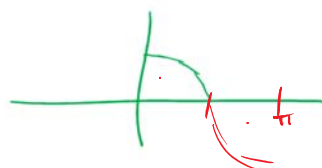
6.  $\int_0^\pi -\sin x dx = -2$



7.  $\int_0^1 \sin^{-1} x dx = \frac{\pi}{2} - 1$



8.  $\int_0^{\pi/2} \cos x dx = 1$



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