

AP Calculus – Across and Down

Clue Set: #14

Topic: Riemann Sums

Only digits (0 – 9) and negative signs are allowed. If an answer is an integer, use leading zeros to make the answer fit. (Ex: If 4 digits are required and your answer is 46, enter 0046.) If an answer has decimal places, the decimal point is dropped and trailing zeros are used to make the answer fit to the required number of decimal places which is specified in the problem. (Ex: If 2 decimal places are required and your answer is 12.4682, round to 12.47 and enter 1247. If one decimal place is required and your answer is 15, write 15.0 and enter 150. If one decimal place is required and your answer is 0.5, write 05.)



Across

None

Down

D16. Using the data in the table to the right, the midpoint Riemann approximation with two rectangles gives the same result as the trapezoidal approximation with 4 trapezoids. Find the value of k .

x	1	3	5	7	9
y	-2	-3	k	8	-8

D75. $\int_{-\pi/3}^{\pi/3} \cos x \, dx$ is approximated with 6 Riemann sum rectangles using equal subintervals. What is the difference between the approximations, if first, left Riemann sums are used and then right Riemann sums are used.