

# AP Calculus – Across and Down

Clue Set: #15

Topic: Integral as Area

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.)

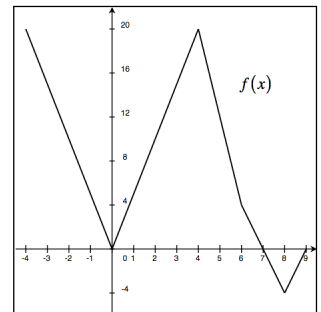


Across

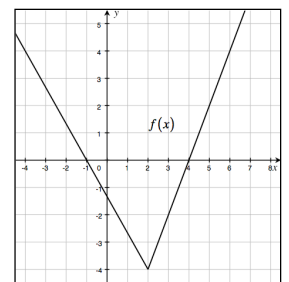
A45. Find  $\int_{-4}^6 ||x|-2| dx$ .

Down

D5. Using the graph to the right made up of lines, find  $\int_{-4}^8 |f(x)| dx$ .



D23. If  $f(x)$ , made up of lines, is defined in the figure to the right, find  $\int_2^5 f(x-3) dx$ .



D38. The graph of  $f(x)$ , defined on  $[-300, 1000]$  as shown in the figure to the right is made up of three straight lines. What is the largest value of  $a$  for

which  $\int_a^{-300} f(x) dx = a$ ?

