Pseudo-code for taking the numerical derivative of tabular data:

1. Create a list or add a column to the table to store the derivative.
2. Enter a for-loop over the tabular data with i as the index.
3. If the index is 1 calculate the derivative with the forward method:
$$\frac{y_{i+1} - y_i}{x_{i+1} - x_i}.$$
4. Elseif the index is equal to the length of the table calculate the derivative with the backward method:
$$\frac{y_i - y_{i-1}}{x_i - x_{i-1}}.$$
5. Else calculate the derivative with the center method:
$$\frac{y_{i+1} - y_{i-1}}{x_{i+1} - x_{i-1}}.$$
6. Store the derivative into the list/table created in step 1.
7. Iterate until derivative is calculated.