Python Calculus Activity Assessment

In your group, have each *individual* member select one of the functions and corresponding input value listed below. For each, create or modify Python code in order to compute the derivative at the given input. As part of the product, explain what you did to analyze the problem, how that analysis led to the changes/modification in the Python code and the results. Then, as a group, collaboratively work problem 5 and answer its sub-questions, a and b.

1. $f(x) = x^3 + 2x^2 - x + 5$ at $x = -2$
2. $f(x) = \sin(x)$ at $x = \pi$
3. $f(x) = \cos(x)$ at $x = \pi$
4. $f(x) = \sqrt{x}$ at $x = 4$
5. As one group, compute the derivative of $f(x) = (x-2)^{2/3}$ at $x = 2$ and then answer the following:
   a. What is different?
   b. In terms of the graph of f(x), what is the significance of this difference?