Your grade is based on the process as well as the final result. Show all your steps clearly so you will be eligible for the most partial credit. You may use a calculator, but no notes, books, or other students. Good luck!

1.) (5 pts.) State whether the function in the graph below is even, odd, or neither. Give a reason (or reasons) to support your answer.

Neither. It is not symmetric about the y-axis, so it is not even. (A reflection about the y-axis is shown as a dashed line.)

It is not symmetric about the origin, so it is not odd. (A 180° rotation would go through the dot on the upper half of the y-axis.)

2.) (5 pts.) Explain why \( \pi^x \) defines an exponential function but \( x^\pi \) does not.

An exponential function has \( x \) in the exponent, as in \( \pi^x \).

In \( x^\pi \), the \( x \) is not in the exponent. (Only \( \pi \), a constant, is in the exponent.)