## Extrema Calculator Problem

Use the second derivative test to locate and identify all local extrema of the function

$$
f(x)=\left(32 x^{7}-48 x^{5}+18 x^{3}-x\right) \sin x .
$$

Carefully plot the graph of the function, and justify all claims. You may use your calculators to find and analyze derivatives. Look for symmetry.

