Sine function

sin(x) can be calculated using the following formula:

$$sin(x) = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \cdots$$

where ellipses indicate continuing pattern.

1. Using this formula implement your own version of the sine function.
2. Explain how you would test its precision.
3. Explain how you would test its run-time speed against the library function.