

NAME :

Consider the expression $\sin(\pi/4)$.

In answering the questions below, give all relevant Sage commands and their output.

1. Verify that Sage knows the exact value of $\sin(\pi/4)$.
2. Compute a numerical approximation for $\sin(\pi/4)$, with an accuracy of 19 decimal places.

Verify that the approximation has indeed an accuracy of 19 decimal places by computing the difference between the approximation and the exact value.

Homework Assignment:

Bring to class on Wednesday the print out of the Sage notebook (or SageMath worksheet) with your answers to assignment 1 of Lecture 1; and assignments 1, 3, 4, and 5 of Lecture 2. Questions requiring an explanation must be answered with a couple of *complete* sentences.