

*Show your work!*

*It is not enough just to write the answer. You should show some calculations or write an explanation.*

Write your name and code on the back of this page.

{ 20 points }      **Evaluate the integral.**

$$\int_{\frac{\pi^2}{4}}^{\pi^2} \frac{1}{\sqrt{x}} \sin \sqrt{x} \, dx$$