Problem. This is an unnumbered problem.

Problem 1. This is a numbered problem.

Problem 2. This is the second numbered problem.

Problem 3. This problem has several parts:

(a) The first part.

(b) The second part.

(c) The third part.

Problem 4. Compute the following integral

$$\int e^{-x^2} \, dx$$

Problem 5. Explain why everyone loves Mathematics.

Problem 6. Compute the integral $\int \sin x^2 \, dx$.

Problem 7. In the space provided, prove the Riemann Hypothesis.