

Classwork Assignment: Monday, October 12

Do all problems on a separate piece(s) of paper. Box your final answers. Show all your work and write your answers in simplest form. Always write the exact answer, instead of a decimal approximation, unless otherwise instructed.

After you're done, scan all pages of your solution, in the correct order, into a single PDF file and submit on Canvas. The deadline is 9:00 a.m. on Tuesday, October 13.

1. Combine the following logarithmic expression into a single logarithmic term:

$$5 \ln x - \frac{1}{2} \ln y - 2 \ln(y^2 + 9)$$

2. Solve the equation:

$$3xe^x + x^2e^x = 0$$