

In **30 minutes** do the following problems, **without help** from any references, computing devices, or people.

Write your solutions either on a printout, or blank paper. If you use blank paper, do the problems on **1 sheet of paper, in the order given**. Upload a pdf of your solutions to **Gradescope, by midnight**.

Compute the following. You may use more than one technique of integration on each problem. Show your work.

1.  $\int \frac{1}{x^2 - 4x + 3} dt$

2.  $\int \frac{1}{x^2 \sqrt{9 + x^2}} dt$