1. §7.7: 47-64 all. For each problem:

   (a) The integral behaves like a more simple integral when $x$ is large Write down what you think the simple integral is. Popular choices will be

   \[ \int_a^\infty \frac{dx}{x^p} \quad \text{and} \quad \int_a^\infty \frac{dx}{e^x} \]

   However, other choices are possible. If necessary, break the domain of integration into two pieces.

   (b) Does the original integral converge or diverge? (Don’t compute the integral.)

2. Repeat this exercise for Problems 57-68 (all) on page 499 of your text. That is, for each problem answer two questions:

   (a) What’s it like?
   (b) Does it converge?