



## Practice – 2

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Once you feel confident with the comparison technique, complete problems 1 to 3. Check your answers by going to the Solutions tab in Moodle.

**Instructions:** Answer each of the following practice questions on a separate piece of paper. Step by step solutions are provided under the Solutions tab. You will learn the material more thoroughly if you complete the questions before checking the answers.

1. Use the comparison technique to integrate  $\int \frac{3x}{(x^2 + 1)^3} dx$ .
2. Find the indefinite integral for  $\int (x - 1)^2 dx$  using the comparison technique. Next, find the same indefinite integral by expanding first expanding the binomial, and then integrating term by term. Are the results the same?
3. Integrate  $\int 3 \sec 2x \tan 2x dx$ .