Practice – 2

Once you feel confident with asymptotes, complete problems 1 to 5. 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. Determine the equations of the vertical asymptotes on the graph of the
    function $y = \dfrac{x^3}{2x^2 - 5x - 3}$.

2. Determine the equation of the horizontal asymptote on the graph of the
    function $y = \dfrac{3x^2 + 1x - 5}{2x + 1 - 6x^2}$.

3. Determine the equations of any asymptotes for the function $y = \dfrac{x + 5}{x^2 + 8x + 15}$.

4. Determine the equation of the oblique asymptote for the function $y = \dfrac{x^2 + 5}{x}$.

5. Determine the equations of any asymptotes for the function $y = \dfrac{x^3}{x^2 - 4}$.