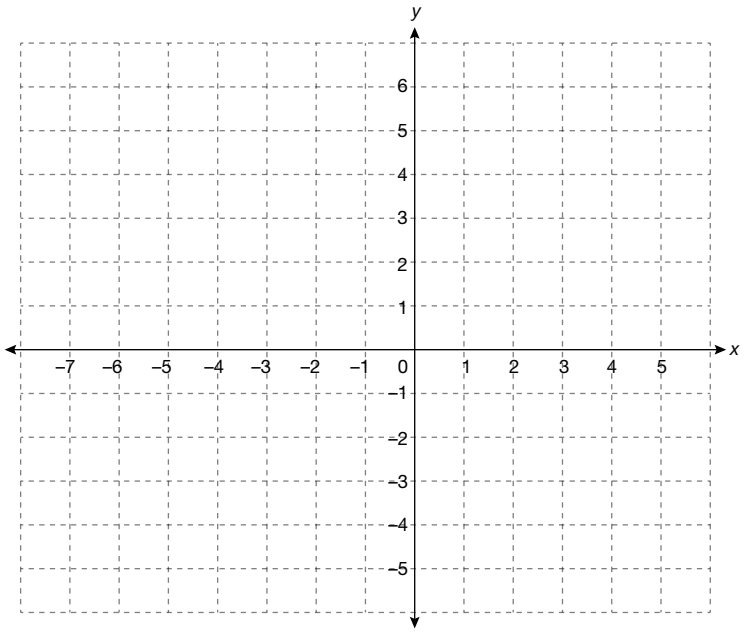
Practice – 1

Once you feel confident with intervals of increase and decrease, complete problems 1 to 4. Check your answers by going to the Solutions tab in Moodle.

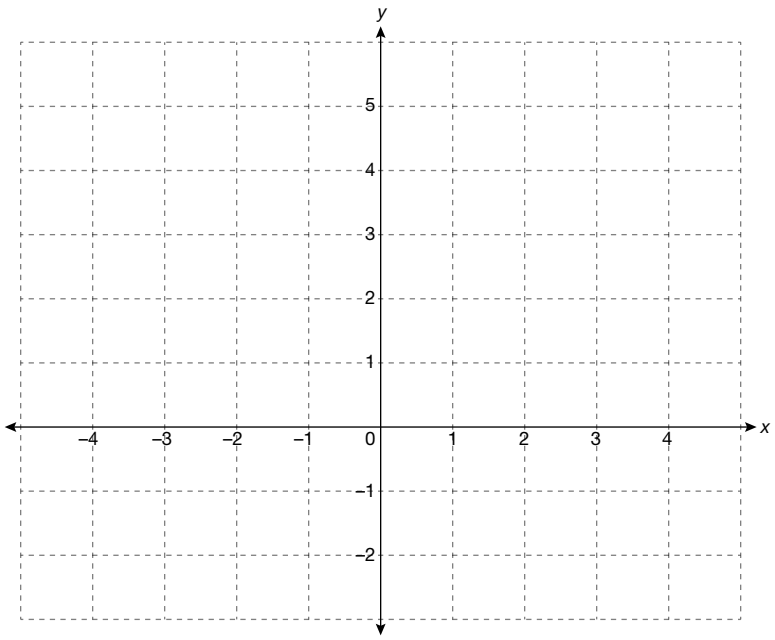
Instructions: Answer each of the following practice questions on a separate piece of paper. Step by step solutions are provided under the Solutions tab. You will learn the material more thoroughly if you complete the questions before checking the answers.

1. Sketch a graph of $f(x) = x^2 + 2x - 3$.

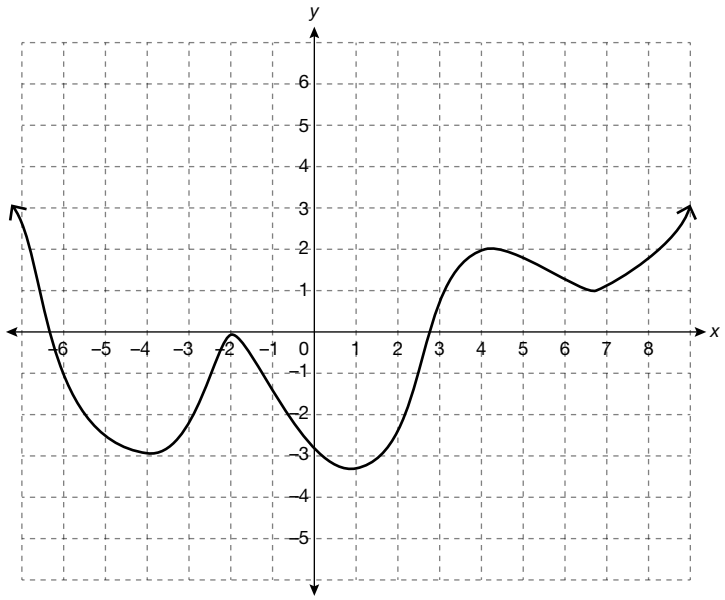


2. Find the intervals of increase and decrease for $f(x) = (x^2 - 1)^3$. Express the solution in interval notation.

3. Sketch the graph of $h(x) = \dfrac{x^2}{x^2 + 3}$.



4. The graph of the function $y = f(x)$ is given.



Complete the following chart.

Critical Points						
Intervals						
Sign of $f'(x)$						
Behavior of $f(x)$						