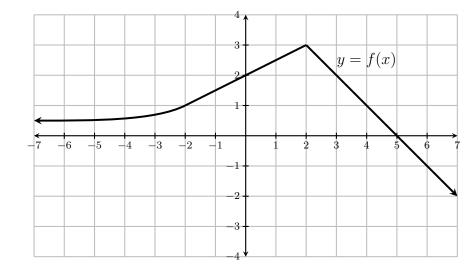1. This problem concerns the function $f(x) = 4 + 2e^x - \sqrt[3]{x^2}$.

   (a) Find $f'(x)$.

   (b) State the intervals on which the function $f(x)$ is differentiable.

2.   The graph of a function $f(x)$ is shown below.

   (a) Using the same coordinate axis, sketch the graph of its derivative $f'(x)$

   (b) At which x values is $f(x)$ **not** differentiable?

1. This problem concerns the function $g(x) = 3\sqrt[3]{x^2} - 6 + 2e^x$.

   (a) Find $g'(x)$.

   (b) State the intervals on which the function $g(x)$ is differentiable.

2. The graph of a function $g(x)$ is shown below.

   (a) Using the same coordinate axis, sketch the graph of its derivative $g'(x)$

   (b) At which x value(s) is $g(x)$ **not** differentiable?