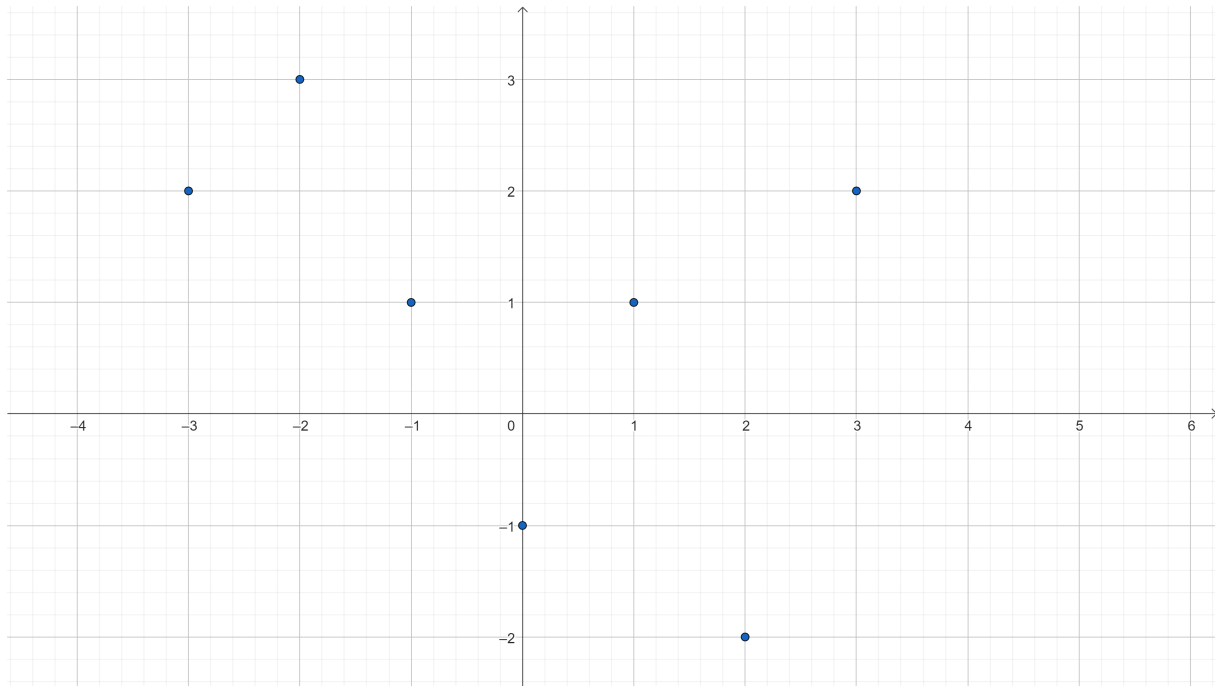Name:

Result:

Group A

**1.** *(2 points)*

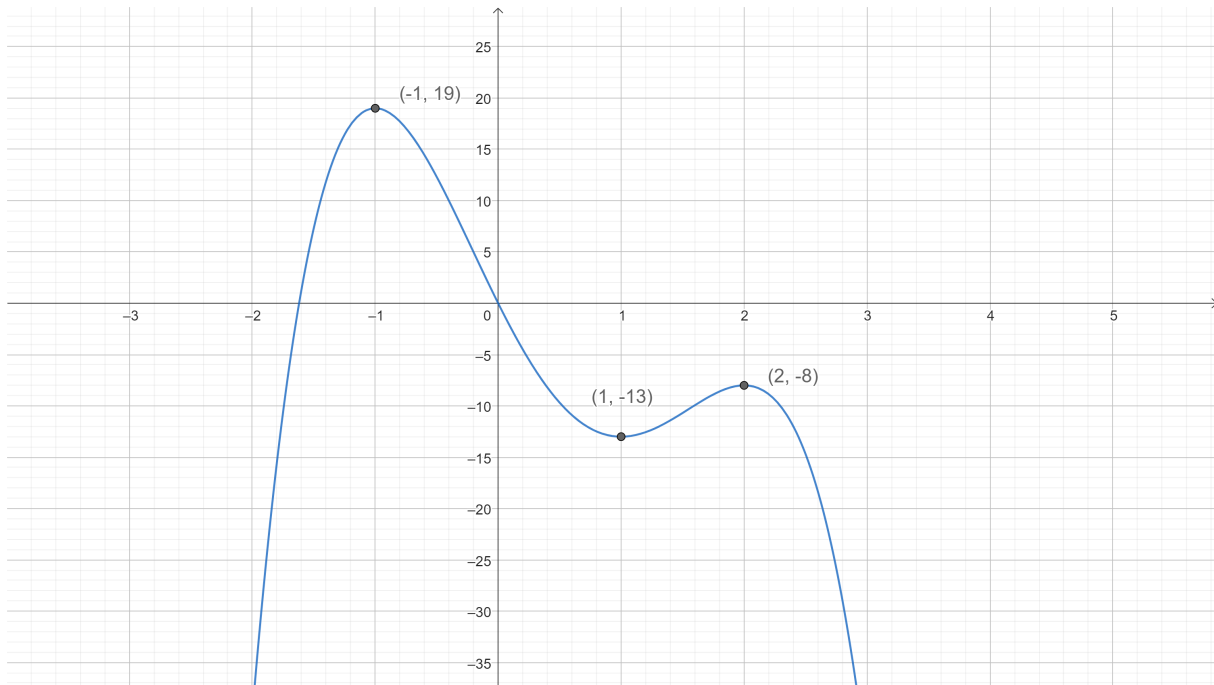Find the domain of the function $f(x) = \dfrac{x+2}{x-3} + \sqrt{4-x} - \dfrac{1}{\sqrt{x+2}}$.

**2.**                                                                                   *(4 points)*

The graph of $f(x)$ is shown below:



(a) Find the domain and range of $f(x)$.

(b) State the value of $f(-2)$.

(c) Solve $f(x) = 2$.

**3.** *(4 points)*

The graph of $f(x)$ is shown below:



(a) List and classify all turning points (extrema) of the function.

(b) State the range of the function.

**4.**                                      *(4 points)*

Sketch the graphs of the functions $y = \sqrt{x}$ and $y = x^3$