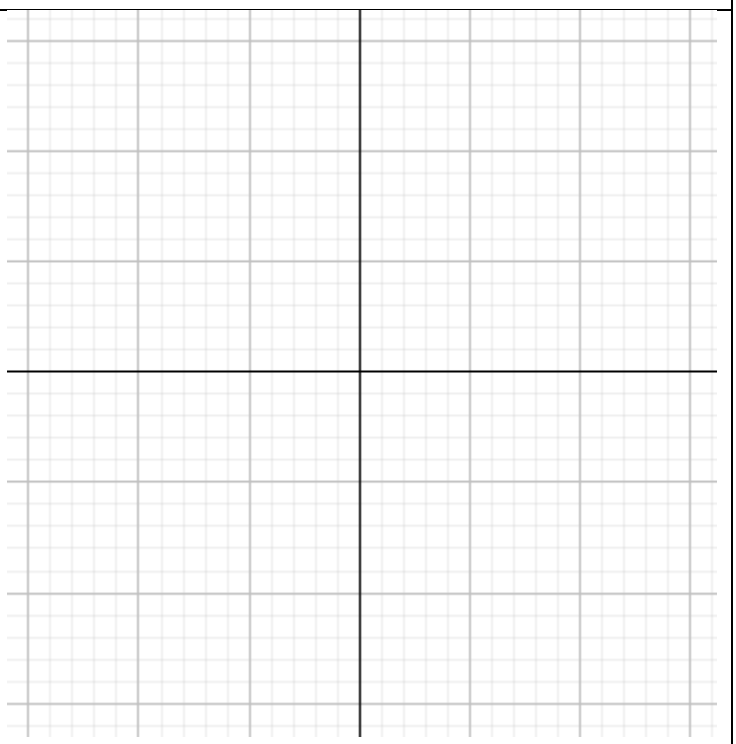
Math Analysis Quiz 4 Class Sequence ID:

1. If $f(x) = -\log_{\frac{1}{2}}(x^2 - x - 2)$,

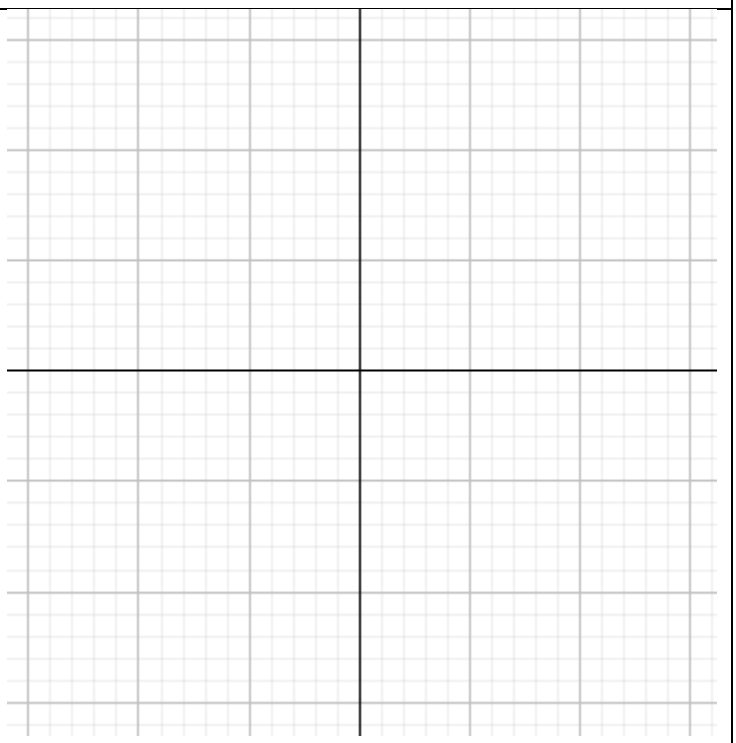
Find domain of $f(x)$

2. Consider $g(x) = \left(\frac{1}{2}\right)^{x-2} - 5$. Without the help of an electronic device. Identify an interval of two consecutive integers where the x-intercept of g(x) falls in.



3. Graph g(x) from question 2, identify the x, y intercepts as well as the horizontal asymptote

4. Consider $h(x) = \log_{\sqrt{2}}(x-2)$, Graph h(x) on the coordinate plan provided and find x and y intercepts of h(x)



5. Find the inverse function of h(x) algebraically from question 4. Graph $h^{-1}(x)$ on the same coordinate plane with $h(x)$ and identify its x and y intercepts

6. Evaluate $\log_{12} 24 + \log_{12} 6$