

MATH 19501 Quiz 9 - Winter 25

Name: _____ EMPLID: _____ Answer all 3 questions.

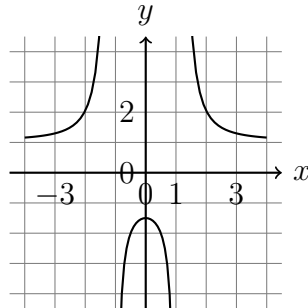
You must show all of your work as neatly and clearly as possible and indicate the final answer in the provided region for each non-graph question. For all graph questions, you should sketch your graph on the grid provided.

1. (4 points) Find the domain of each rational function. Express each answer using interval notation.

(a) (2 points) $R(x) = \frac{x+1}{x^2-1}$. Write your answer in the box below:

(b) (2 points) $R(x) = \frac{x^2+4}{x^2-2x-8}$. Write your answer in the box below:

2. (4 points) From the graph, determine the vertical and horizontal asymptotes.



Write your answer in the box below:

Vertical:	Horizontal:
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3. (4 points) Restrict the domain of the function $f(x) = \sqrt{x - 5}$ and then find $f^{-1}(x)$.

Write your answer in the box below:

Restricted Domain:	$f^{-1}(x) =$
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