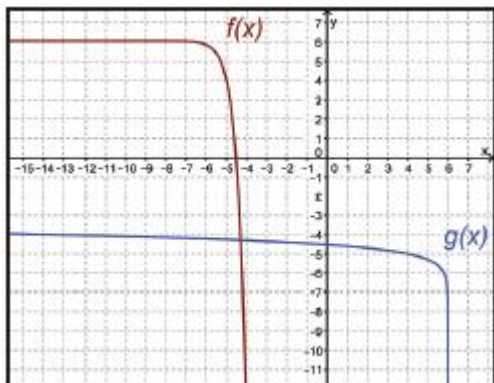Algebraic Reasoning

Name:_____

Per:_____

POINTS:____

Classwork #27 Quiz

Be sure to include your work when appropriate.

1. Generate the logarithmic function that is the inverse of the exponential function
$g(x) = (10)^{x+1} + 3$

2. Using graphs and tables, verify whether or not $f(x) = 10^{x+3} + 5$ and $g(x) = \log(x - 5) + 3$ are inverses, including checking any necessary domain or range restrictions.

3. Using graphs and tables, verify whether or not $f(x) = e^x + 2$ and $g(x) = \ln(x - 2)$ are inverses, including checking any necessary domain or range restrictions.
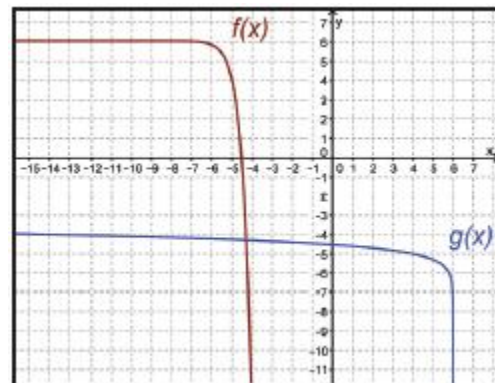
Compare the domain and range as well as any intercepts, if they exist, of the functions graphed below. Write domain and range as inequalities, intervals, or in set builder notation, and determine whether or not $h(x)$ and $p(x)$ are inverses.
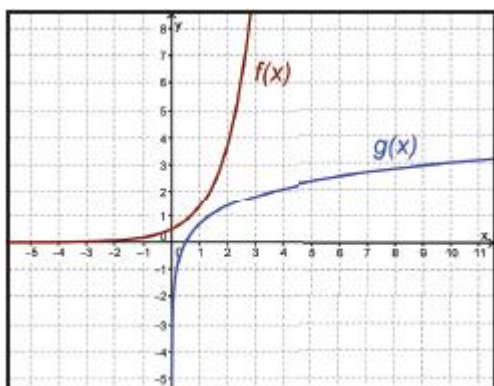
4.

Compare the domain and range as well as any intercepts, if they exist, of the functions graphed below. Write domain and range as inequalities, intervals, or in set builder notation, and determine whether or not $h(x)$ and $p(x)$ are inverses.

4.

5.

5.