

Honors Algebra II Assignment 9.2

Inverse Function Transformations

due Dec 1/2

#1 - 4: Write and graph a function with the given transformations to $f(x) = \frac{1}{x}$

1. Translated to the right 7 units

Translated down 8 units

2. Translated left 4 units

Reflected over y-axis

3. Reflected over x -axis

Stretched vertically by factor of 3

4. Translated right 2 units

Reflected over y -axis

Reflected over x -axis

#5 - 8: State the domain and range of each function using both inequalities and interval notation

5. $f(x) = 3\left(\frac{1}{x+1}\right) - 2$

6. $f(x) = \frac{1}{2(x+2)} + 3$

7. $f(x) = \frac{x+5}{0.5x+2}$

8. $f(x) = \frac{4x+13}{-2x-6}$

9. A movie streaming service costs \$10/month, plus \$1 for each movie you watch. How many movies would you have to watch per month to average out to \$3 for each movie?

10. A video arcade charges a \$15 cover, but each game costs only a nickel to play. How many games would you need to play to bring the average to 25 cents per game?