HW: 6.1 Graphing Reciprocal Functions Algebra 2 Kitt

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period: \_\_\_\_\_

Directions: Identify the vertical asymptotes, horizontal asymptotes, horizontal asymptote, domain, and range of each. Graph your result.

1. $y=\frac{-4}{x}$ 2. $y=\frac{4}{x-1}+1$ 3. $y=\frac{-3}{x-1}-1$



Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_

Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. $y=\frac{3}{x-2}$ 5. $y=\frac{3}{x+1}-2$ 6. $y=\frac{3}{x+1}+2$



Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_

Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. $y=\frac{3}{x}+1$ 8. $y=\frac{2}{x-3}+1$ 9. $y=\frac{4}{x+1}+1$



Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_

Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. $y=\frac{4}{x+2}$ 11. $y=\frac{-1}{x+1}$ 12. $y=\frac{5}{x}+2$



Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_\_ Vertical Asymptote: \_\_\_\_\_\_\_

Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_ Horizontal Asymptote: \_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_