

Name: _____
PCH: Constructing Rational Functions Given Characteristics Homework

Date: _____
Ms. Loughran

1. Construct a rational function with the following characteristics:

Horizontal Asymptote: $y = 3$

Vertical Asymptote: $x = 2$

x -intercept at $x = -5$

2. Construct a rational function with the following characteristics:

Horizontal Asymptote: $y = -4$

Vertical Asymptotes: $x = \pm 3$

No x -intercept

3. Construct a rational function with the following characteristics:

Oblique Asymptote: $y = x + 4$

Vertical Asymptote: $x = 5$

x -intercept at $x = 2$

4. Construct a rational function with the following characteristics:

Horizontal asymptote: $y = 2$

Vertical Asymptote: $x = -1$

Hole at $x = 5$

x -intercept at $x = 2$