Math 4 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3-3 Practice** Date\_\_\_\_\_\_\_\_

*I can identify important characteristics (asymptotes, holes, intercepts, and end behavior) of*

*rational functions.*

1. Find the following information for the below functions:

a. 

*Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *x-intercept(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *y-intercept: \_\_\_\_\_\_\_\_\_*

*horizontal asymptote(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *vertical asymptote(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*oblique asymptote:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hole: \_\_\_\_\_\_\_\_\_\_\_\_\_*

b. 

*Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *x-intercept(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *y-intercept: \_\_\_\_\_\_\_\_\_*

*horizontal asymptote(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *vertical asymptote(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*oblique asymptote:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hole: \_\_\_\_\_\_\_\_\_\_\_\_\_*

c. 

*Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *x-intercept(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *y-intercept: \_\_\_\_\_\_\_\_\_*

*horizontal asymptote(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *vertical asymptote(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*oblique asymptote:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hole: \_\_\_\_\_\_\_\_\_\_\_\_\_*

2. Find the following information for the below functions:

a. 

*Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *x-intercept(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *y-intercept: \_\_\_\_\_\_\_\_\_*

*horizontal asymptote(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *vertical asymptote(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*oblique asymptote:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hole: \_\_\_\_\_\_\_\_\_\_\_\_\_*

b. 

*Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *x-intercept(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *y-intercept: \_\_\_\_\_\_\_\_\_*

*horizontal asymptote(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *vertical asymptote(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*oblique asymptote:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hole: \_\_\_\_\_\_\_\_\_\_\_\_\_*

c. 

*Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *x-intercept(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *y-intercept: \_\_\_\_\_\_\_\_\_*

*horizontal asymptote(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* *vertical asymptote(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*oblique asymptote:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hole: \_\_\_\_\_\_\_\_\_\_\_\_\_*