

Name: _____

MORE Rational Functions Practice **Remember to show work with Algebra for credit! ☺**

For each problem find the following (if any exist). Remember to give coordinate pairs for holes, x-intercept(s) and y-intercept.

a) Find holes, vertical asymptotes, and horizontal asymptotes.

b) Find domain, x-intercept(s), and y-intercept.

9. $f(x) = \frac{3x^2}{x^2 - 16}$

Hole: _____ V.A. : _____ H.A. : _____

Domain: _____ x-int(s): _____ y-int: _____

10. $f(x) = \frac{x^2 + x - 6}{x + 3}$

Hole: _____ V.A. : _____ H.A. : _____

Domain: _____ x-int(s): _____ y-int: _____

11. $f(x) = \frac{x + 8}{x^2 - 64}$

Hole: _____ V.A. : _____ H.A. : _____

Domain: _____ x-int(s): _____ y-int: _____

12. $f(x) = \frac{x + 8}{x^2 + 64}$

Hole: _____ V.A. : _____ H.A. : _____

Domain: _____ x-int(s): _____ y-int: _____

13. $f(x) = \frac{x^3 - 8}{x - 2}$

Hole: _____ V.A. : _____ H.A. : _____

Domain: _____ x-int(s): _____ y-int: _____

14. $f(x) = \frac{x^2 + 4x + 3}{3x^2 + 6x + 3}$

Hole: _____ V.A. : _____ H.A. : _____

Domain: _____ x-int(s): _____ y-int: _____

15. $f(x) = \frac{x^3 - 1}{x^2 - 1}$

Hole: _____ V.A. : _____ H.A. : _____

Domain: _____ x-int(s): _____ y-int: _____