MA 153
11.4 & 11.5 practice

Name _____

1. Determine any holes, vertical and horizontal asymptotes of each. Write your asymptotes as equations. Also report any zeros or intercepts. If NONE, state so. No partial credit

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

holes: _____

vertical: _____

horizontal: _____

zeros: _____

y-intercept: _____

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

holes: _____

vertical: _____

horizontal: _____

zeros: _____

y-intercept: _____

c. $f(x)=\frac{8x^7-32x^5}{1+x^2}$

holes: _____

vertical: _____

horizontal: _____

zeros: _____

y-intercept: _____

d. $f(x)=\frac{7x^2+63}{100+x^2}$

holes: _____

vertical: _____

horizontal: _____

zeros: _____

y-intercept: _____

e. $f(x)=\frac{3x^2-75}{x^2+13x}$

vertical: _____ *y*-intercept: _____

horizontal: _____ zeros: _____