

## Formative Assessment #27 – Analyzing and Graphing Functions

C5.10: I can determine the key features of the graph of a function using the techniques of differential calculus.

C5.11: I can use the key features of a function to graph the function.

Complete the table and graph the function.

$$f(x) = \frac{2x^2 - 8}{x^2 - 1} \quad f'(x) = \frac{12x}{(x^2 - 1)^2} \quad f''(x) = \frac{-36x^2 - 12}{(x^2 - 1)^3}$$

Characteristics	Answers
Domain	
y-intercept(s)	
x-intercept(s)	
Symmetry	
Equation of the VA(s)	
Equation of the HA	
Interval(s) of Increase	
Interval(s) of Decrease	
Maximum Value(s)	
Minimum Value(s)	
Concave Up	
Concave Down	
Inflection Point(s)	