

Name: \_\_\_\_\_

### Offline HW 4

This offline assignment is **due Friday, February 16, 2018**. No extensions will be given.

**The overall look of your paper will count toward your grade.** Please graph the function on the grid provided below. **Submissions on other paper will not be graded. You must graph the function neatly and accurately BY HAND!**

This must be **YOUR work**; you are not allowed to ask tutors, friends or family members for help. You CAN however consult with your classmates. If you choose to do so, each of you must submit a separate paper and the name of the person(s) with whom you collaborated must be written on this paper. The papers that are **suspiciously identical will receive 0 credit**.

Graph  $f(x) = \frac{x^3 - 2x^2 - 8x}{x^2 - 9}$ . Show all works leading to the answers

1) Domain

2) y-intercept

x-intercepts

3) Vertical asymptotes

4) Horizontal/oblique asymptote

5) Intersection with asymptote

6) Symmetries

7) Sign chart

8) Graph

