

RIDDLE  
CALCULUS

NAME \_\_\_\_\_

SECTION 3-6 Practice - 25 Points

ANALYZE AND SKETCH THE GRAPH OF EACH FUNCTION LISTED BELOW. YOUR SUMMARY SHOULD INCLUDE THE FOLLOWING INFORMATION:

- |  |                                 |
|--|---------------------------------|
| 1. domain                                | 10. second derivative           |
| 2. range                                 | 11. critical numbers            |
| 3. vertical asymptotes                   | 12. sign analysis               |
| 4. horizontal asymptotes                 | 13. concave up / down intervals |
| 5. first derivative                      | 14. points of inflection        |
| 6. critical numbers                      | 15. x-intercepts                |
| 7. sign analysis                         | 16. y-intercepts                |
| 8. increasing/decreasing interval        | 17. the sketch of the graph     |
| 9. maximum, minimum, saddle point values |                                 |

Function:  $f(x) = \frac{\cos x}{1 + \sin x} \quad [0, 2\pi]$

