**C U R V E S K E T C H I N G W O R K S H E E T**

**CSULB///MATH 122/// SUARAY**

*f(x)=*

|  |  |  |
| --- | --- | --- |
| *f′(x)*=  *Zeros:* | *f″(x)*=  *Zeros:* | |
| *f(x)=* | | **C. SYMMETRY**  Find *f(-x)*=  If applicable, determine period *p*: | |
| **A. DOMAIN** | |
| **D. HORIZ. ASYMPTOTE**  Find the following limit(s):  **VERT. ASYMPTOTE(s)**  Check the following limit(s): | |
| **B. y-INTERCEPT**  Where *f(x)* crosses y-axis, so set \_\_\_\_\_\_=0:  **x-INTERCEPT(s)**  Where *f(x)* crosses x-axis, so set \_\_\_\_\_\_=0: | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **E. INC/DEC**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | INTERVAL |  |  |  |  | | *f′(x)* |  |  |  |  | | *f(x)* |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | INTERVAL  ctd |  |  |  |  | | *f′(x)* |  |  |  |  | | *f(x)* |  |  |  |  |   **F. LOCAL MAX/MIN**  The function *f(x)* has a local \_\_\_\_\_\_\_ value of \_\_\_\_\_\_\_\_\_\_\_\_\_\_  that occurs at \_\_\_\_\_\_\_\_\_\_\_  The function *f(x)* has a local \_\_\_\_\_\_\_ value of \_\_\_\_\_\_\_\_\_\_\_\_\_\_  that occurs at \_\_\_\_\_\_\_\_\_\_\_  The function *f(x)* has a local \_\_\_\_\_\_\_ value of \_\_\_\_\_\_\_\_\_\_\_\_\_\_  that occurs at \_\_\_\_\_\_\_\_\_\_\_ | **SUMMARY: POINTS TO BE INCLUDED IN THE SKETCH**  A. DOMAIN (interval notation)  B. INTERCEPTS  y: (\_\_\_\_\_ , \_\_\_\_\_)  x: (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_);  (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_)  C. SYMMETRY  Odd? Even? Periodic? None?  D. ASYMPTOTES  H.A. Equation:  \_\_\_\_\_=\_\_\_\_\_\_  V.A. Equation(s):  \_\_\_\_\_=\_\_\_\_\_\_; \_\_\_\_\_=\_\_\_\_\_\_;  \_\_\_\_\_=\_\_\_\_\_\_; \_\_\_\_\_=\_\_\_\_\_\_  F. LOCAL EXTREMA  Min: (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_);  (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_)  Max: (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_);  (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_)  G. INFLECTION POINTS  (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_);  (\_\_\_\_\_ , \_\_\_\_\_); (\_\_\_\_\_ , \_\_\_\_\_) |
| **G. CONCAVITY**   |  |  |  |  | | --- | --- | --- | --- | | INTERVAL |  |  |  | | *f″(x)* |  |  |  | | *f(x)* |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | | INTERVAL  ctd |  |  |  | | *f″(x)* |  |  |  | | *f(x)* |  |  |  | |