

SUMMARY OF CURVE SKETCHING AP CALCULUS

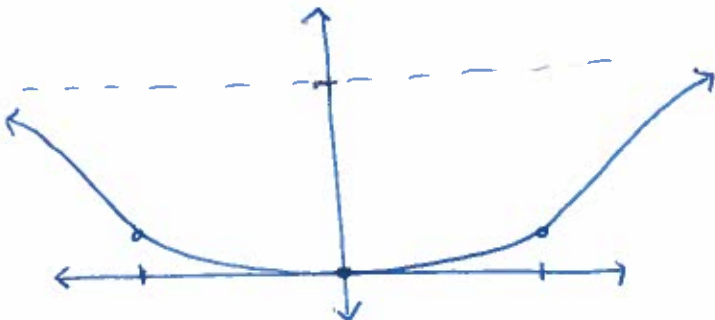
Answers
NAME _____

Sketch the graph of each function. Label the relative extrema and points of inflection.

1. $f(x) = \frac{x^2}{x^2+3}$

$(0,0)$ Rel Min

$(-1, \frac{1}{4})$ $(1, \frac{1}{4})$ POI

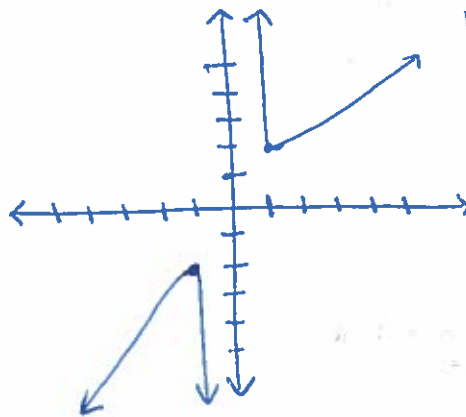


2. $f(x) = \frac{x^2+1}{x}$

$(-1, -2)$ Rel Max

$(1, 2)$ Rel Min

No Inf. Points

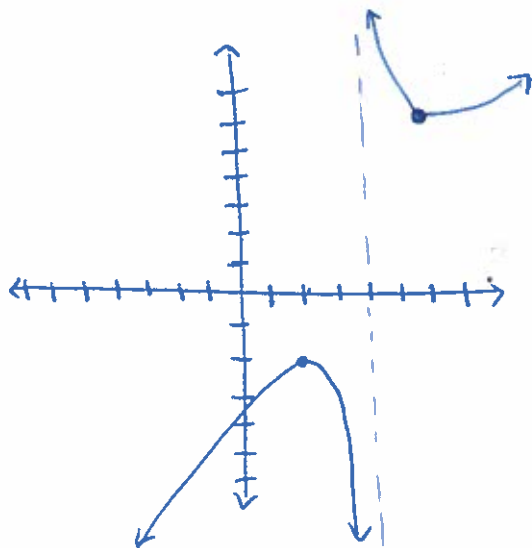


3. $f(x) = \frac{x^2 - 6x + 12}{x - 4}$

$(2, -2)$ Rel Max

$(6, 6)$ Rel Min

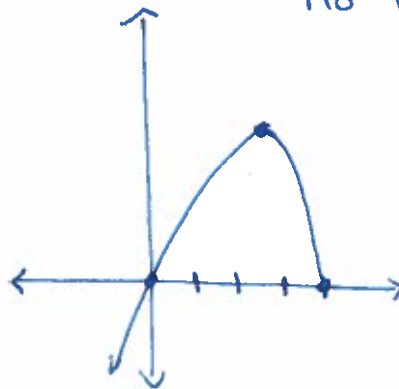
No Inf Pts.



4. $f(x) = x\sqrt{4-x}$

$(\frac{8}{3}, \frac{16\sqrt{3}}{9})$ Rel Max

No Inf. Points

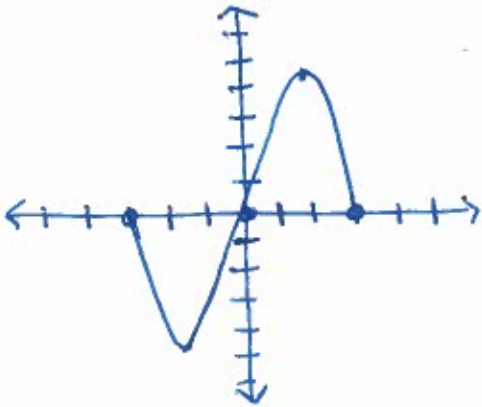


5. $f(x) = x\sqrt{9-x^2}$

$(\frac{3\sqrt{2}}{2}, \frac{9}{2})$ Rel Max

$(-\frac{3\sqrt{2}}{2}, -\frac{9}{2})$ Rel Min

$(0,0)$ POI

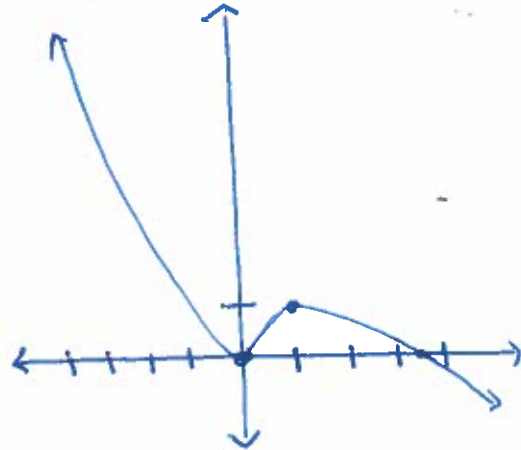


6. $f(x) = 3x^{2/3} - 2x$

$(1,1)$ Rel Max

$(0,0)$ Rel Min

No Inf. Pts.

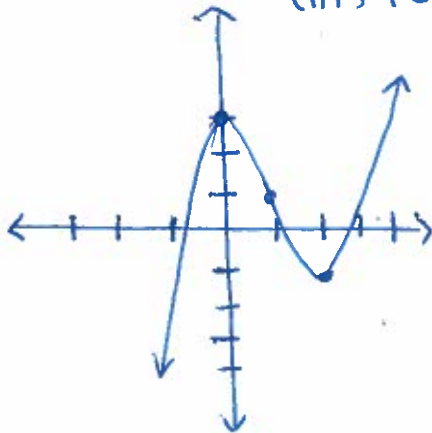


7. $f(x) = x^3 - 3x^2 + 3$

$(0,3)$ Rel Max

$(2,-1)$ Rel Min

$(1,1)$ POI



8. $f(x) = 3x^4 + 4x^3$

$(-1,-1)$ Rel Min

$(0,0)$ $(-\frac{2}{3}, -\frac{16}{27})$

POI

