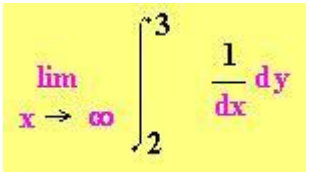

CRITICAL NUMBERS

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Please Send Questions and Comments to ingrid.stewart@csn.edu. Thank you!

Problem 1:

Find the *critical numbers* of $f(x) = 2x^3 + x^2 - 20x + 4$ with domain $(-\infty, \infty)$

Problem 2:

Find the *critical numbers* of $f(x) = x^{2/3} - 1$ with domain $(-\infty, \infty)$

Problem 3:

Find the *critical numbers* of $f(x) = \sqrt[3]{x^2 - x - 2}$ with domain $(-\infty, \infty)$

Problem 4:

Find the *critical numbers* of $f(x) = x\sqrt{9 - x^2}$ with domain $[-3,3]$

Problem 5:

Find the *critical numbers* of $f(x) = x\sqrt{2} - 2\cos x$ with restricted domain $[-2\pi, 2\pi]$

Problem 6:

Find the *critical numbers* of $f(x) = (x+2)^3 - 4$ with domain $(-\infty, \infty)$

SOLUTIONS
You can find detailed solutions below the link for this problem set!

1. -2 and $\frac{5}{3}$	2. 0
3. -1, $\frac{1}{2}$, and 2	4. -3, $-\frac{3\sqrt{2}}{2} \approx -2.12$, $\frac{3\sqrt{2}}{2} \approx 2.12$, and 3
5. $\frac{-3\pi}{4}$, $\frac{-\pi}{4}$, $\frac{5\pi}{4}$, and $\frac{7\pi}{4}$.	6. -2