

MTH 1125 - Concavity Max Min Exercises Set 1

FALL 2022

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Name _____

In the exercises below, ¹Determine the intervals on which $f(x)$ is increasing/decreasing

²Identify all relative maximums and minimums

³Determine the intervals on which $f(x)$ is CCU/CCD

⁴Identify all points of inflections

⁵Graph $f(x)$

1. $f(x) = x^3 - 6x^2 + 9x + 2$

2. $f(x) = x^3 - 3x^2 - 9x + 13$

3. $f(x) = 2x^3 - 12x^2 + 18x - 3$

4. $f(x) = \frac{16}{5}x^{\frac{5}{3}} + x^{\frac{2}{3}} + 2$

5. $f(x) = x^3 - 9x^2 - 21x + 118$

6. $f(x) = x^3 - 12x^2 + 21x + 48$

7. $f(x) = x^4 - 8x^3 + 5$