

Name:

Please show all your work to get the full credit. It consists of 4 questions.
It is due on Monday, 30th October.

1(3pts) Determine whether the function f is even, odd, or neither.

(a) $f(x) = x^{-3}$ (b) $f(x) = x^4 - 4x^2$ (c) $f(x) = 3x^3 + 2x^2 + 1$

2(2.5pts) Compute the maximum or minimum value for $f(x) = \sqrt{x^2 - 4x + 20}$.

3(2.5pts) Find the maximum or minimum value of the function.

$$f(x) = -\frac{x^2}{3} + 2x + 7$$

4(2pts) Compute $(f \circ g)(x)$ where $f(x) = 2^x$ and $g(x) = x^2 + 1$.