LAST NAME	FIRST NAME	DATE

1 (6 points). Find the absolute extrema of the function $h(x) = \dfrac{\ln(x)}{x^2}$ on the interval $\left[\frac{1}{2}, 4\right]$.

2 (4 points). Verify that the function $F(x) = 1/x$ satisfies the hypotheses of the MVT on the interval $[1,3]$, and find all numbers c that satisfy the conclusion of the MVT.

3 (6 points). Find the critical numbers of the function:

    (a) $f(x) = e^{3x} + 6e^{2x} - 15e^x$

    (b) $g(x) = |x^2 - 5x + 6|$