## MAT125, Paper Homework 1

1. Find all real values of $x$ which satisfy the following:
(a) $\ln \left(x^{2}-1\right)=3$
(b) $e^{2 x}-3 e^{x}+2<0$
2. Find all values of $x$ with $0 \leq x \leq 2 \pi$ which satisfy the following:
(a) $\cos \left(x^{2}\right)-1 / 2=0$
(b) $\sin (x)>\cos (x)$
