MAT125, Paper Homework 1

1. Find all real values of x which satisfy the following:

(a)
$$\ln(x^2 - 1) = 3$$

(b)
$$e^{2x} - 3e^x + 2 < 0$$

2. Find all values of x with $0 \le x \le 2\pi$ which satisfy the following:

(a)
$$\cos(x^2) - 1/2 = 0$$

(b)
$$\sin(x) > \cos(x)$$