

**MATH 114 QUIZ 7**  
**8 NOVEMBER 2016**

**Solve the following two problems. Show all steps in your work.**

(1) Which real numbers  $x$  satisfy  $\frac{1}{9^x} = 3^{4x-5}$ ? Check your answers.

(2) Find the range and any horizontal asymptotes of the function  $F(x) = 10 - e^{2x-6}$ .  
Also, what's  $F(3)$ ?