

## MAT125, Paper Homework 5

1. For what values of  $x$  between 0 and  $2\pi$  is the function  $f(x) = x - 2 \sin(x)$  increasing?

2. How many lines which are tangent to the curve  $y = \frac{x}{x+1}$  pass through the point  $(1, 3)$ ?  
Where do they touch the curve?