ICM Final Exam Practice #4

1. Graph the piecewise function 

 Evaluate each for f(x) above.

 

1. Graph the piecewise function $f\left(x\right)=\left\{\begin{array}{c}-x^{2}+3 x<1\\2x+1 x\geq 1\end{array}\right.$

 Evaluate each for f(x) above.

 

Use the definition of derivative to find the derivative of each.

1. $f\left(x\right)=3x^{2}+5x-2$
2. $f\left(x\right)=\frac{4}{x+1}$

Find each limit algebraically! Show work!

1. 6. 7.