NAME: MATH1210-002

Quiz 1: §1.1 & §1.3

June 15, 2016

Instructions: Please show all of your work as partial credit will be given where appropriate, *and* there may be no credit given for problems where there is no work shown. All answers should be boxed and completely simplified, unless otherwise stated. No electronics are allowed.

1. Find these limits or state that the limit does not exist.

   (a) **[2 points]** $\lim_{x\to 2^+} \frac{[[x]]}{2x}$

   (b) **[2 points]** $\lim_{x\to 0^+} \frac{[[x]]}{2x}$

   (c) **[2 points]** $\lim_{x\to 2^-} \frac{[[x]]}{2x}$

   (d) **[2 points]** $\lim_{x\to 0^-} \frac{[[x]]}{2x}$

   (e) **[2 points]** $\lim_{x\to 2} \frac{[[x]]}{2x}$

   (f) **[2 points]** $\lim_{x\to 0} \frac{[[x]]}{2x}$

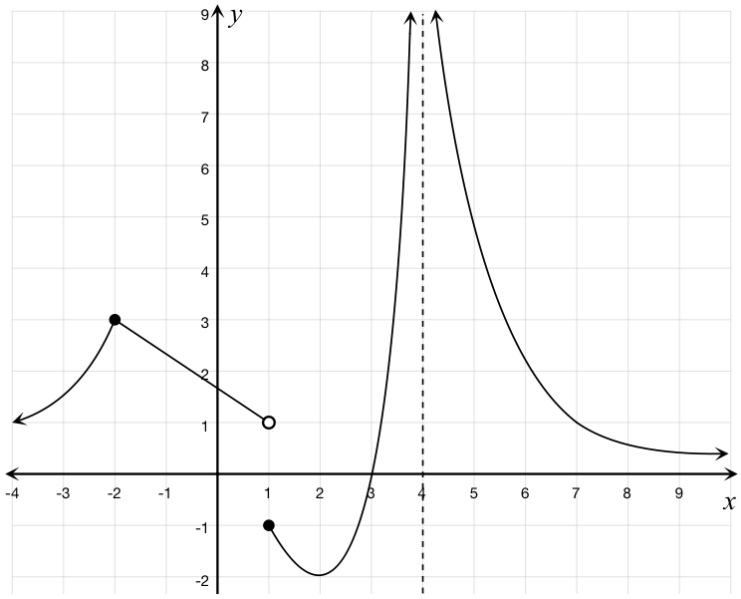
   (g) **[2 points]** $\lim_{x\to \pi} \frac{[[x]]}{2x}$

   (h) **[6 points]** $\lim_{x\to 1^+} \frac{x-1}{1-\sqrt{x}}$

(i) **[6 points]** $\lim_{x \to \pi} \dfrac{x - 3.14}{\pi - 3x}$

(j) **[6 points]** $\lim_{x \to 2} \dfrac{\sqrt[3]{(x-10)(3x-6)^3}}{(x-2)}$

2. **[8 points]** Given the graph of this function $y = h(x)$, answer the following questions:



(a) $\lim_{x \to 1^+} h(x) =$

(b) $\lim_{x \to 4^+} h(x) =$

(c) $\lim_{x \to 1^-} h(x) =$

(d) $\lim_{x \to 4^-} h(x) =$

(e) $\lim_{x \to 1} h(x) =$

(f) $\lim_{x \to 4} h(x) =$

(g) $h(1) =$

(h) $h(4) =$