Math 181 Honors Quiz 4 Version A

1. Find all $x \in \mathbf{R}$ such that $|x^2 - 2| \ge 1$.

2. Write the continued fraction $[2,\overline{3}]$ in the form $\frac{a+\sqrt{b}}{c}$ where a,b and c are integers.

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3. Find all $x \in \mathbf{R}$ such that $\frac{1}{x^2} < \frac{2}{x+1}$.

4. Use the ϵ - δ definition of limit to verify $\lim_{x\to 3} (5x-7) = 8$.