

Math 181 Honors Quiz 5 Version A

1. Find the vertex of the parabola $y = -7 + 3x^2 + x\sqrt{2}$.

2. Use the ϵ - δ definition of limit to verify $\lim_{x \rightarrow 3} \frac{1}{x} = \frac{1}{3}$.

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3. Find the center and radius of the ellipse $3x^2 + 2y^2 + x + y = 5$.

4. Use the ϵ - δ definition of limit to show that $\lim_{x \rightarrow 7} f(x) = 2$ implies $\lim_{x \rightarrow 7} 3f(x) = 6$.