Calculus II	**Name:** _____
Study Guide 0	**Class:** _____
Due Date: _____	**Score:** _____

No Work ⇔ No Points

Use Pencil Only ⇔ Be Neat & Organized

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1. (3 points) Evaluate $\lim_{x \to 2} \dfrac{x^3 - 2x^2}{x^2 - 4}$.

1. _____

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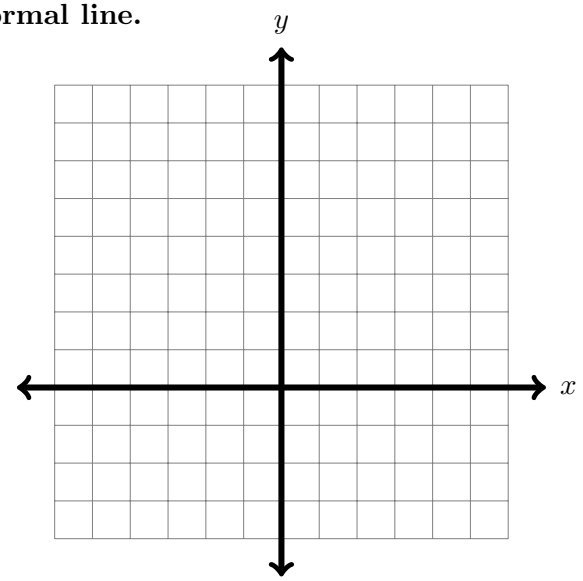
2. (6 points) Find the equation of the normal line to the graph of $f(x) = x^2 - 4$ **at** $(2, 0)$**. Draw both the function and the normal line.**



2. _____

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3. (3 points) Find $\frac{dy}{dx}$: $y = \sin^2 x$

3. _____

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4. (4 points) Find $\frac{dy}{dx}$: $y^2 + x^3 = xy$

4. _____

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5. (5 points) Find $\frac{d^2y}{dx^2}$: $y = \frac{x}{x+1}$

5. _____

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6. (4 points) Evaluate $\int_1^4 \sqrt{x}\, dx$.

6. _____
