Math 1B: Quiz 2

Name: _____

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You must always justify your answers. This means: show your work, show it neatly, and when in doubt, use words (and pictures!) to explain your reasoning. No justification = no points.

1. (5 pts) Evaluate the integral $\int \dfrac{x-1}{x^2 + 2x}\, dx$.

2. (5 pts) Evaluate the integral $\int \dfrac{x^2}{(4 - x^2)^{3/2}}\, dx$.

3. (bonus) It's not wrong to write the answer to problem 1 as "(function) + C", but it's not totally correct either, as C isn't truly a constant. At what x values may the value of C change?