MAT176, Spring 2019   **Renato Ghini Bettiol**

Homework Set 3

Due: Feb 20, 2019 (at the beginning of class)

To be handed in

Please write your solution to Problem 1 on a single sheet of paper!

1. Compute the following integrals. Remember you must show all your work!

   a) $\displaystyle\int \sqrt{16 - 4t^2}\,\mathrm{d}t$ (Hint: Use a trig substitution)

   b) $\displaystyle\int \frac{x^2 + 3x + 2}{x(x^2 + 2)^2}\,\mathrm{d}x$ (Hint: Use partial fractions)

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2. Textbook (5th edition) Section 8.4, Exercises 6-11, 21-24

3. Textbook (5th edition) Section 8.5, Exercises 7-10, 14, 16, 17, 21, 47