Task 1. Go to page 486 on Sec 7.3. Read the four paragraphs and look at the table of trig substitutions (which will be given to you during closed-book assessments).

For each of the book examples below, first write the textbook's solution on your notebook. Then close the textbook and notes and attempt to repeat the process on your own.

Regardless of your success, please write a solution for each question. You can change the numbers or powers a little bit for more variety (if you wish).

Task 2. Sec 7.3 Example 1, pg 486-487:

Evaluate $\int \frac{\sqrt{9-x^2}}{x^2}\,dx$ by inverse substitution x = 3 sin t.

Task 3. Example 2 or 3, pg 487-488:
Write down Examples 2 and 3 in your notebook. Choose one of them (you can change the numbers or powers a little bit for more variety if you wish) and rewrite the solution below (without looking at your notes).

Task 4. Similar to Example 5 (will discuss during class):
Write on your notebook the book's solution for Example 5, pg 489. Then attempt the following question using a similar strategy. At least set up the integral with the trig substitution, but it's OK if you don't get to the final answer.

Evaluate $\int \frac{\sqrt{x^2-9}}{x^3}\,dx$ by inverse substitution x = 3 sec t.

Task 5. Sec 7.3 Example 7, pg 490-491:
Write down the textbook's solution on your notebook. Then rewrite the solution below without looking. Optional: You can change the quadratic function under the root sign a little bit for more variety.

Evaluate $\int \frac{x}{\sqrt{3-2x-x^2}}\,dx$ by first completing the square under the root sign.