MA 114 Quiz 2 September 5, 2019

Answer all questions and show your work. Unsupported answers may receive *no credit*. You may not use a calculator on this quiz. Allow 15 minutes for the quiz.

Name: _____ Section: _____

Remember the trig identities: $\sin^2 + \cos^2 = 1$, $\sin^2 x = \frac{1}{2}(1 - \cos(2x))$ and $\cos^2 x = \frac{1}{2}(1 + \cos(2x))$

1. Find the following integrals.

   (a) (5 points) $\int (\sin^2(x) - \sin^3(x))dx$

   (b) (5 points) $\int \frac{1}{x^2\sqrt{x^2-4}}dx$.