

MAT 155B - FALL 12 - ASSIGNMENT 2

Due date: Monday, Oct 1st¹

Problem. Show that

$$\lim_{b \rightarrow \infty} \lim_{a \rightarrow 0^+} \int_a^b \frac{\arctan(\pi x) - \arctan x}{x} dx = \frac{\pi}{2} \ln \pi$$

URL: <http://www.disconzi.net/Teaching/MAT155B-Fall-12/MAT155B-Fall-12.html>

¹You do not need to hand this in during class. Bring it to my office at any time which is convenient for you. If you do not find me there, please slide it under the door.