UM 101: QUIZ 5

Nov. 24, 2022

Duration. 15 minutes

Maximum score. 10 points

Name.

Tutorial section.

Problem. Prove that

$$\lim_{x \to 1/2} \frac{\sin(4x^2 - 1)}{2x - 1} = 2.$$

Note. You are allowed to use (directly, without proof) any result that was stated in class or as a problem in HW05, as long as you state what you have used! For instance, you may use without proof that $\lim_{x \to 0} \frac{\sin x}{x} = 1$. You may use any trigonometric identities that you know.