

Math 170: Quiz 12

Sayan Mukherjee's discussion

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Problem 1. Compute the following derivative:

$$\left(\frac{\ln(\sin x)}{\tan x} \right)'$$

Solution. The derivative is

$$\frac{(\ln \sin x)' \cdot \tan x - \ln \sin x \cdot (\tan x)'}{(\tan x)^2} = \frac{\frac{1}{\sin x} \cdot \cos x \cdot \tan x - \ln \sin x \cdot \sec^2 x}{\tan^2 x}.$$

□

Rubric.

- Left to the grader's discretion.