

Math 241: HW 8

Due on Wednesday, September 25

Fall '13

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Problem 1

Let $f(x) = \sin^2(10x)$. Give the equation of the tangent line at $x = 0$ and at $x = \frac{\pi}{60}$.

Problem 2

Let $g(x) = \csc(3x)$. Give the equation of the tangent line at $x = \frac{\pi}{9}$.

NOTE: USE A COMPUTER FOR PROBLEMS 3 and 4.

Problem 3

Sketch a graph of $f(x)$ (from problem 1) and graph the two tangent lines that you found.

Problem 4

Sketch a graph of $g(x)$ (from problem 2) and graph the tangent line that you found.