



ID number:

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Quiz 4 (20 min)

Exercise 1: (5 points)

Find the limit of the following functions when x goes to positive infinity.

a) $f(x) = x^2 e^{-x}$

b) $g(x) = (e^x + x)^{1/x}$

Exercise 2: (5 points)

A rectangular plot of farmland will be bounded on one side by a river and on the other 3 sides by a single-strand electric fence. With 800 m of wire at your disposal, what is the largest area you can enclose, and what are its dimensions?