# Section 1 The Tangent and Velocity Problems

Professor Tim Busken

San Diego Mesa College
Department of Mathematics
ACP Program

September 12, 2012

# Limits and Derivatives

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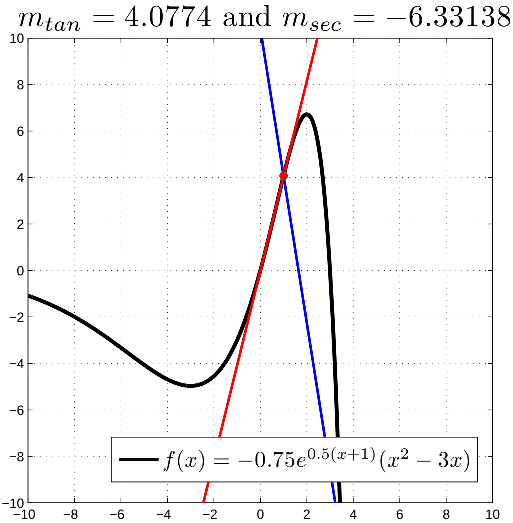

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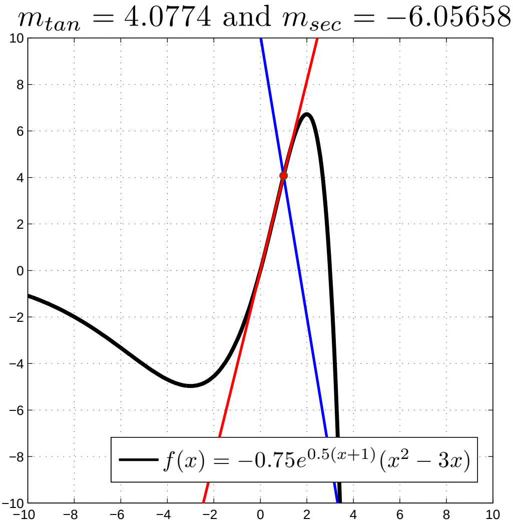

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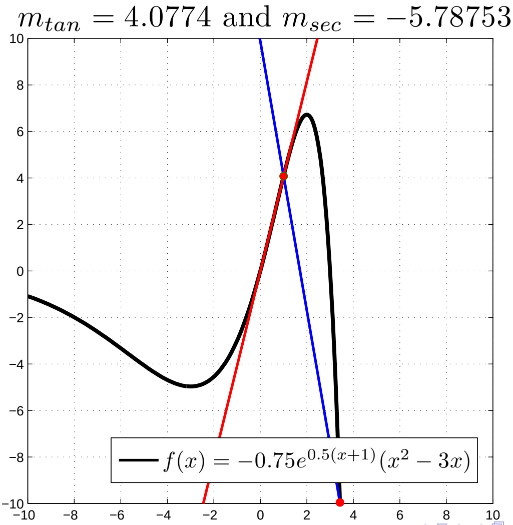

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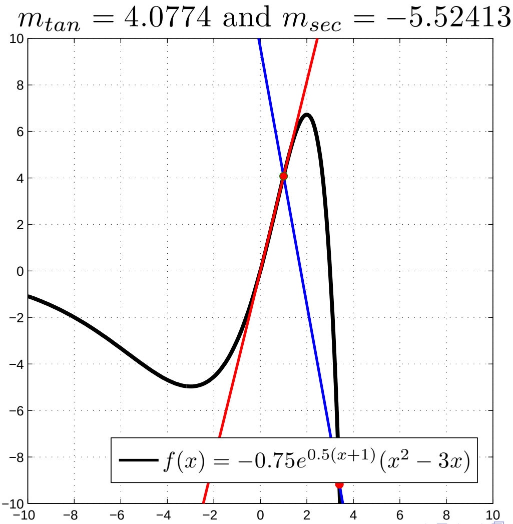

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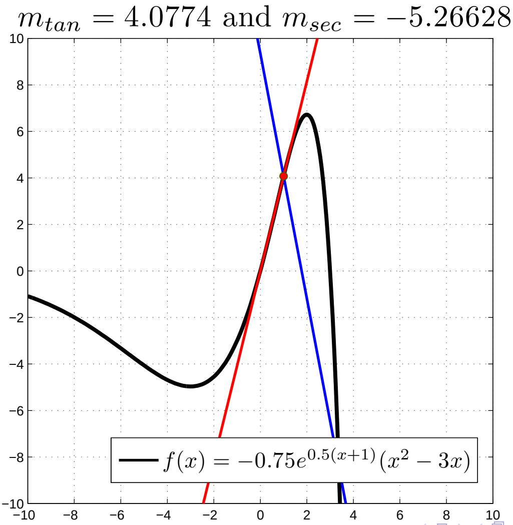

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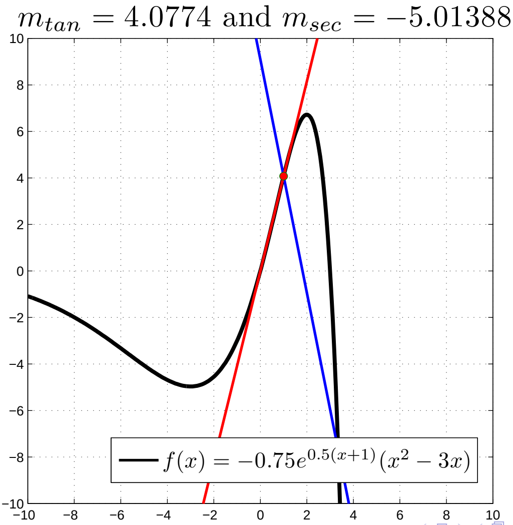

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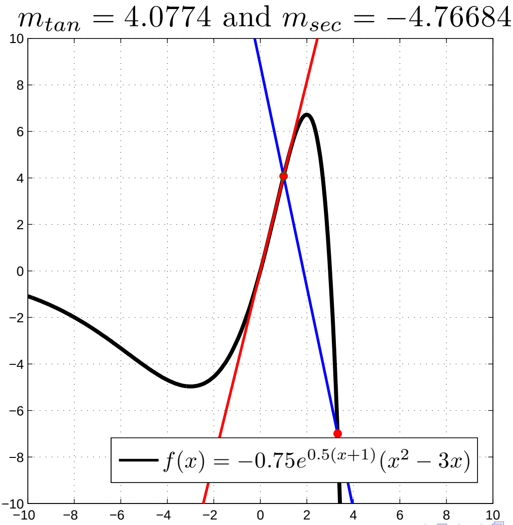

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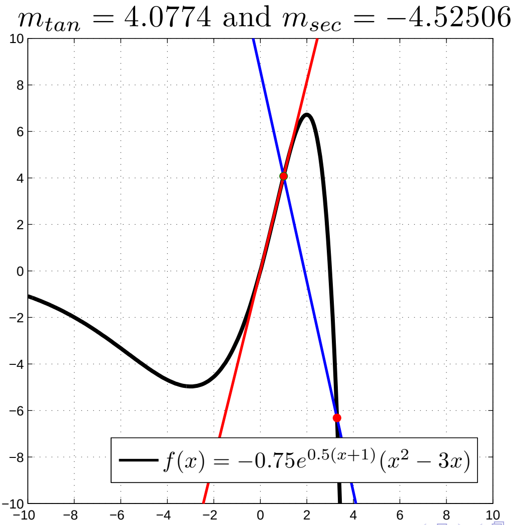

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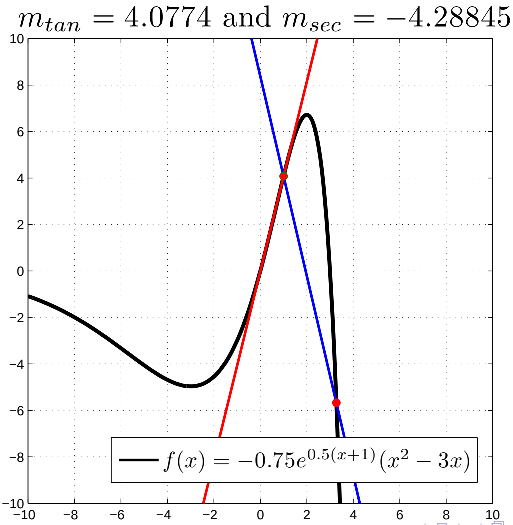

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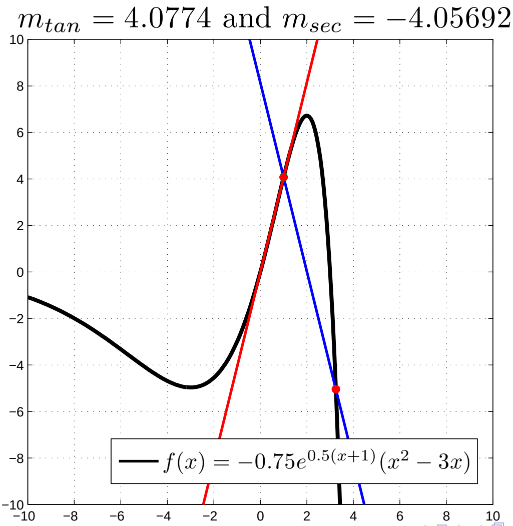

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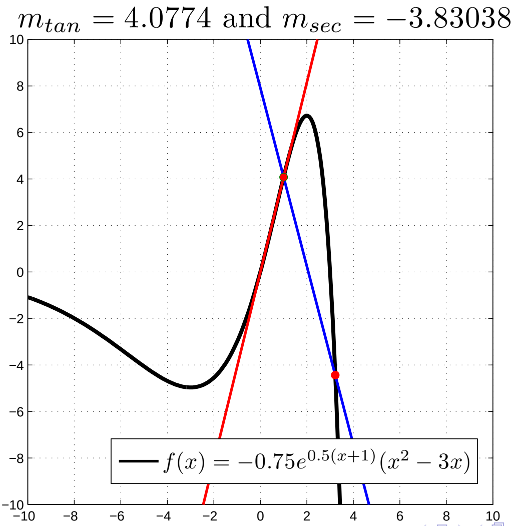

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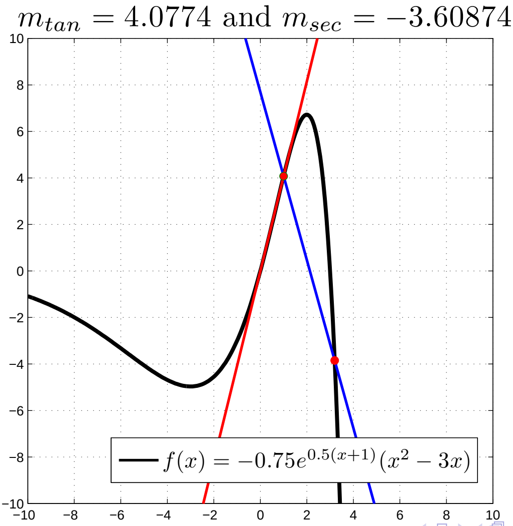

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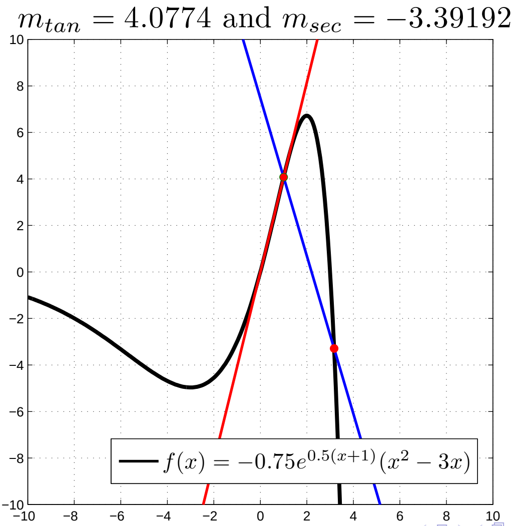

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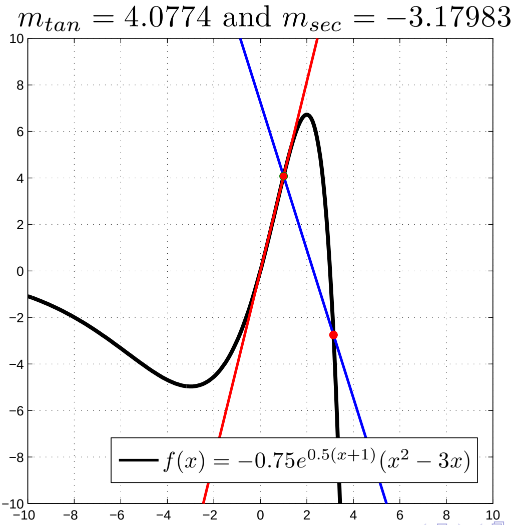

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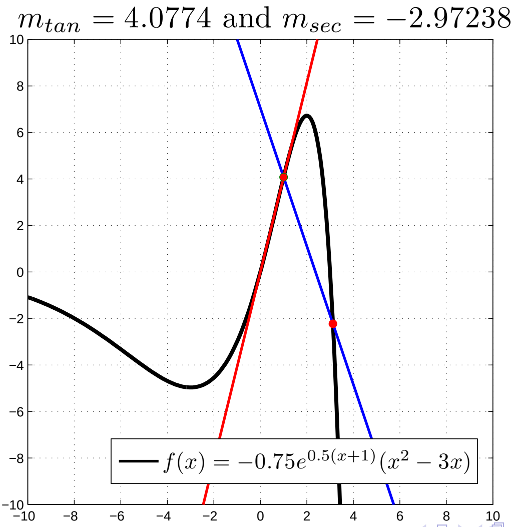

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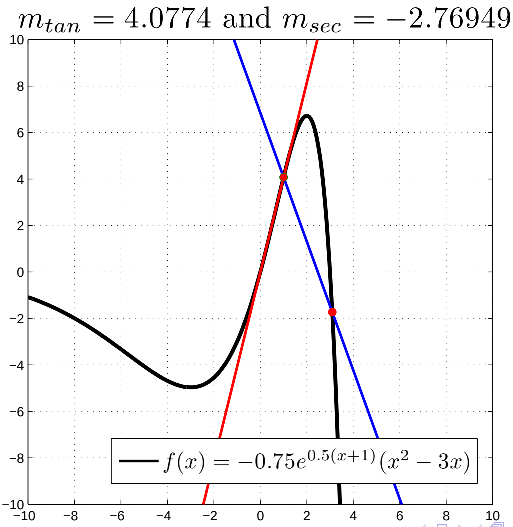

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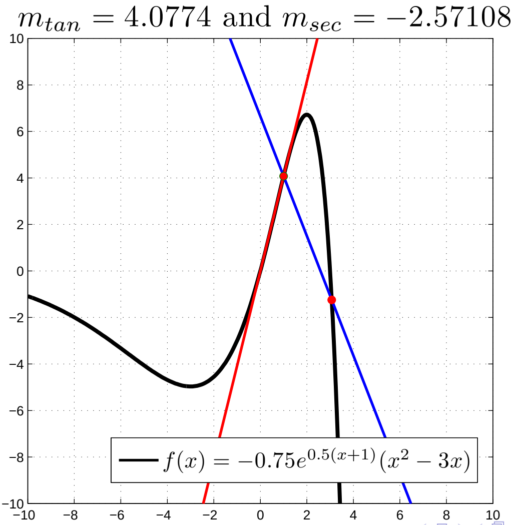

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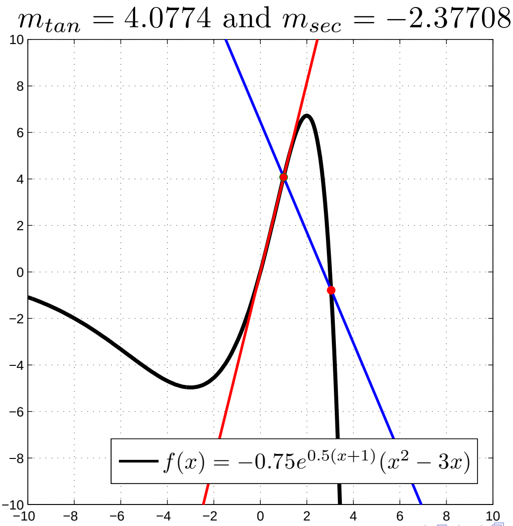

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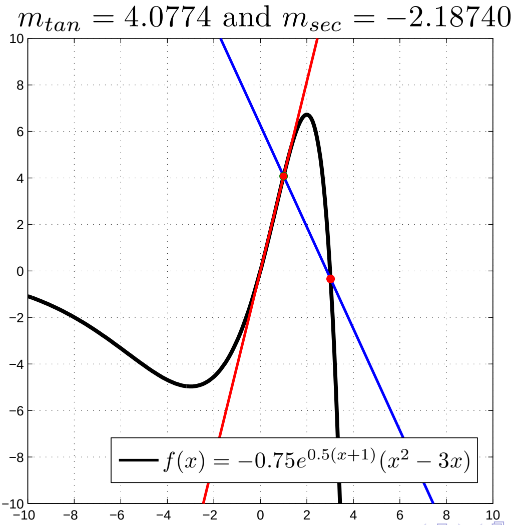

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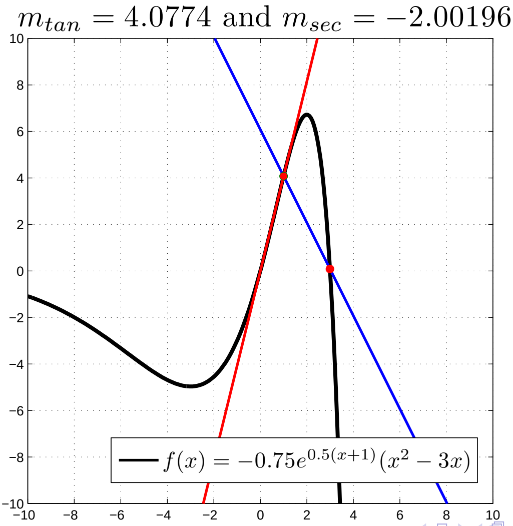

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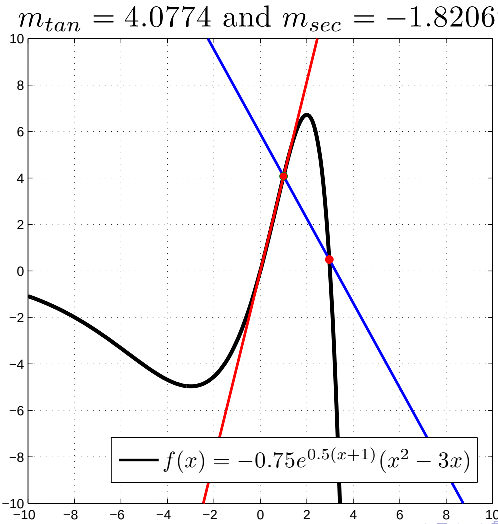

$m_{tan} = 4.0774$ and $m_{sec} = -1.82069$

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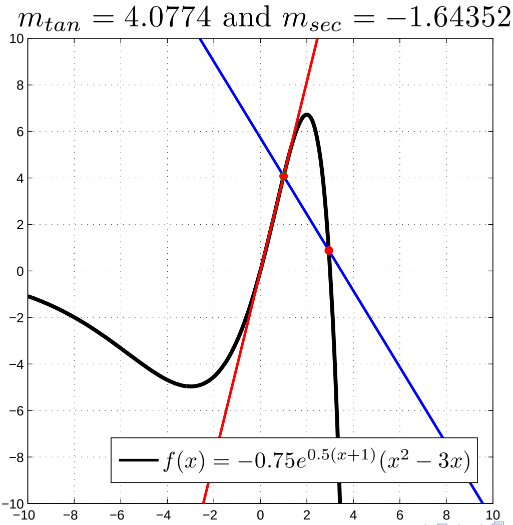

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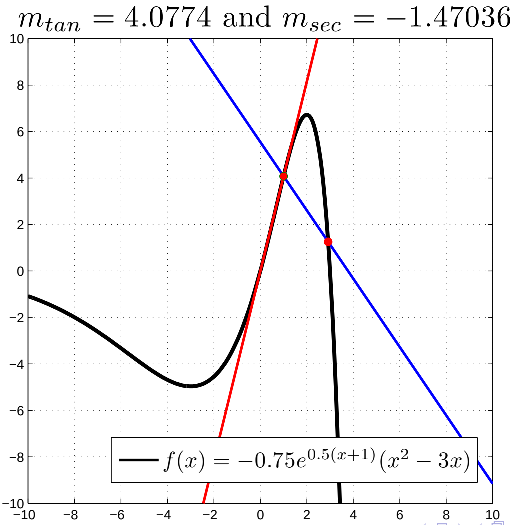

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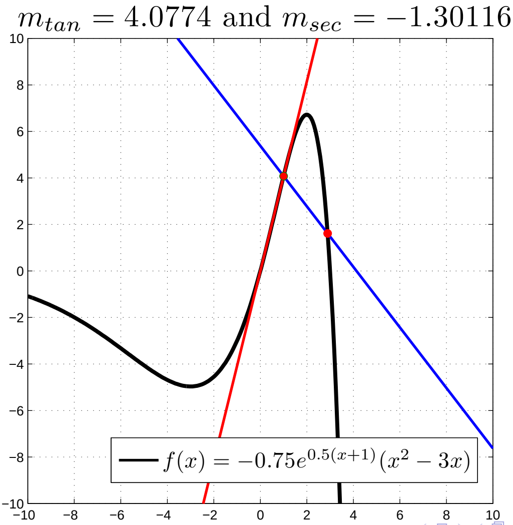

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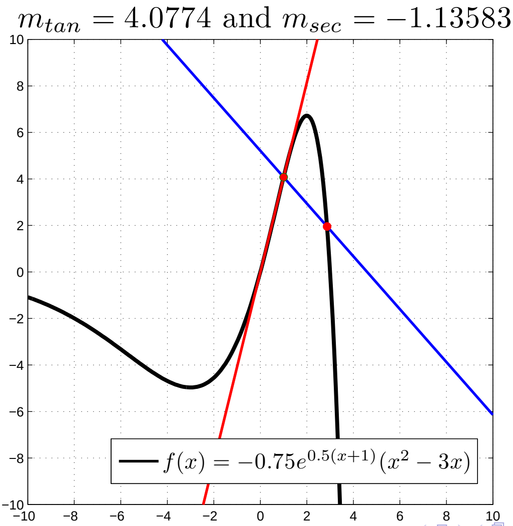

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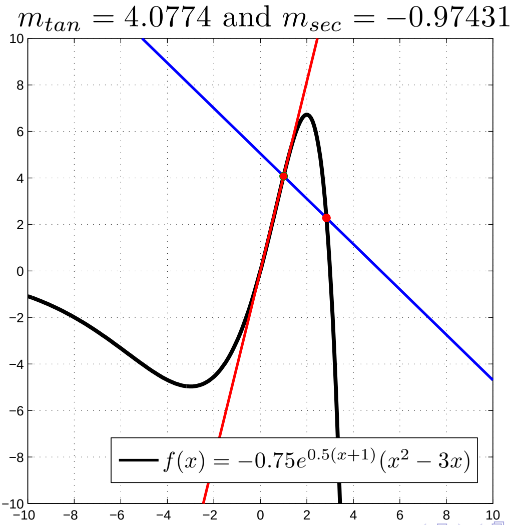

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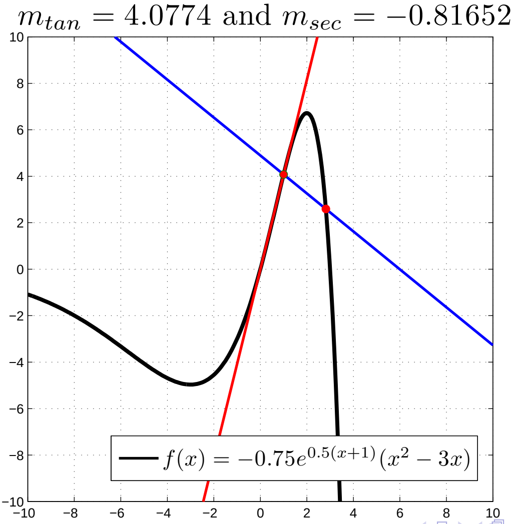

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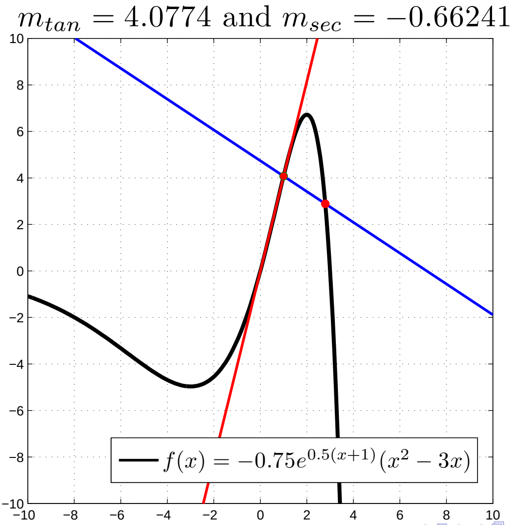

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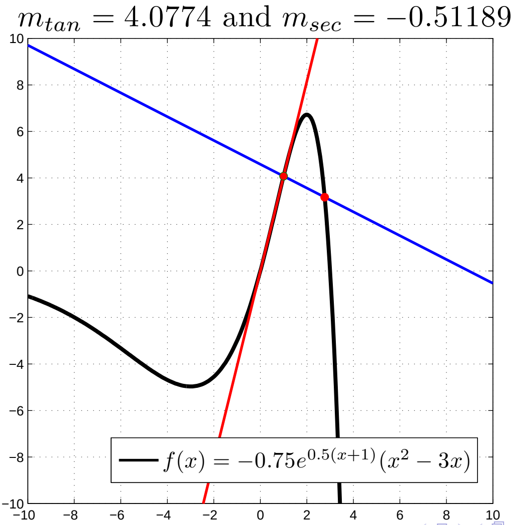

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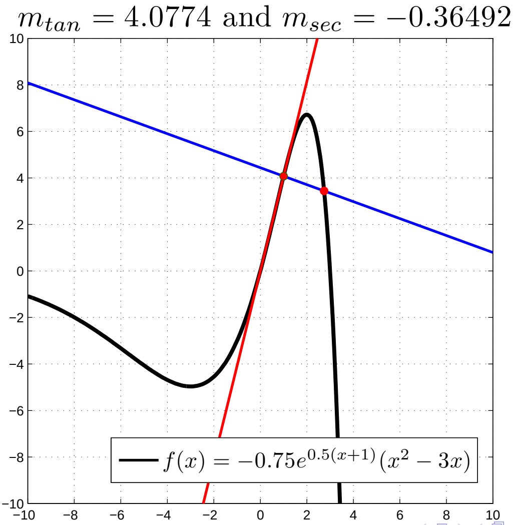

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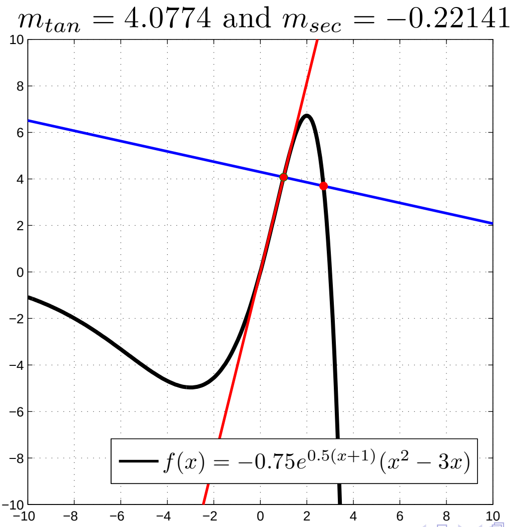

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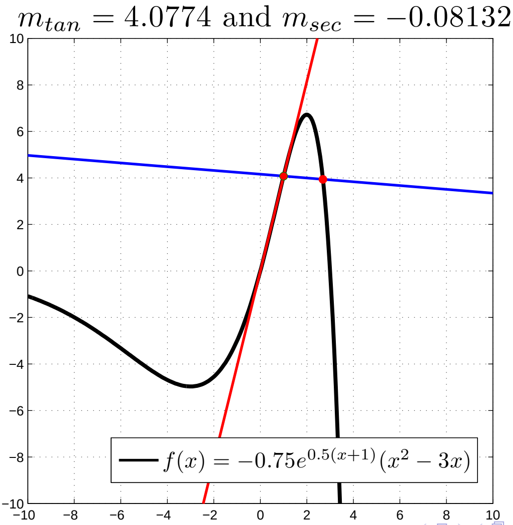

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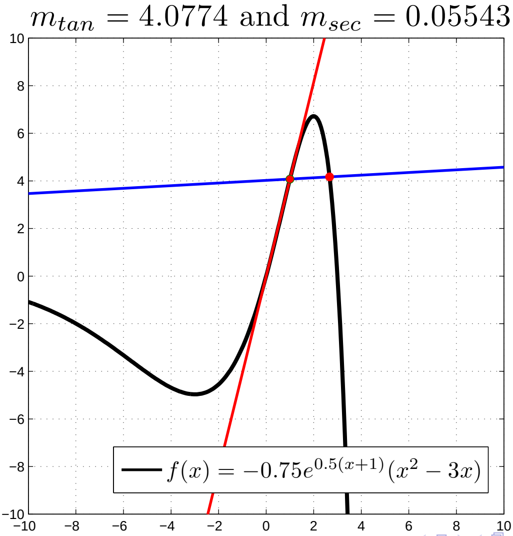

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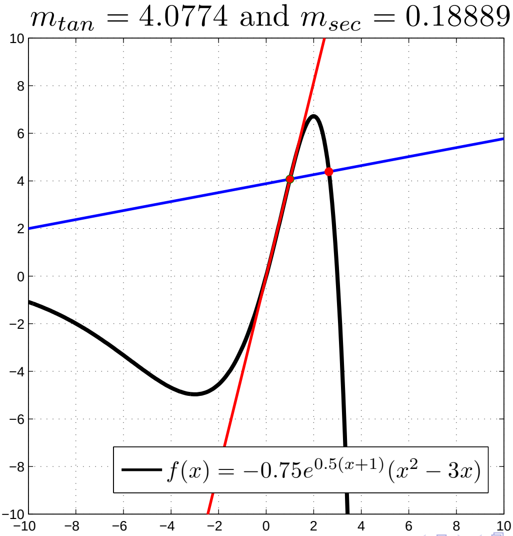

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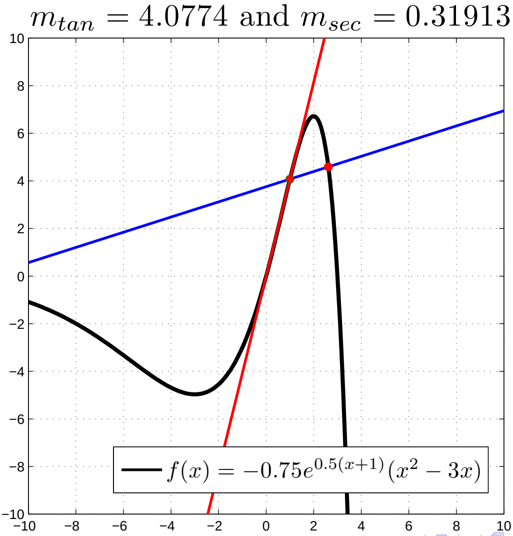

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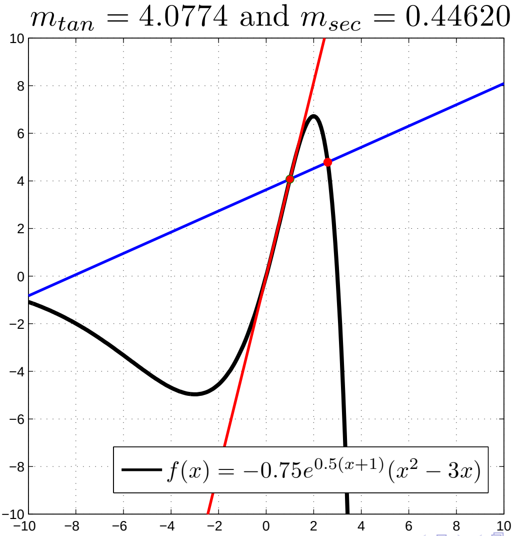

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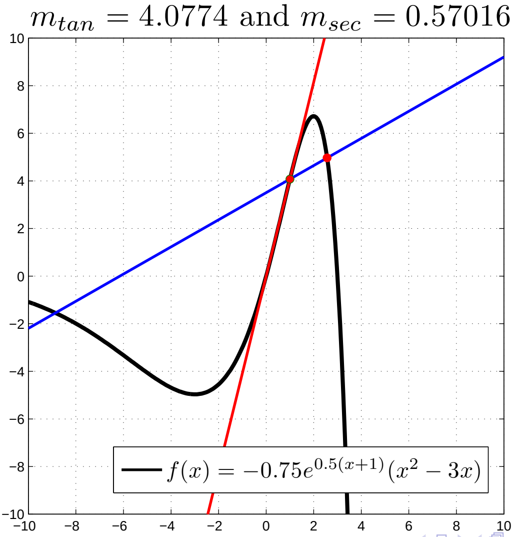

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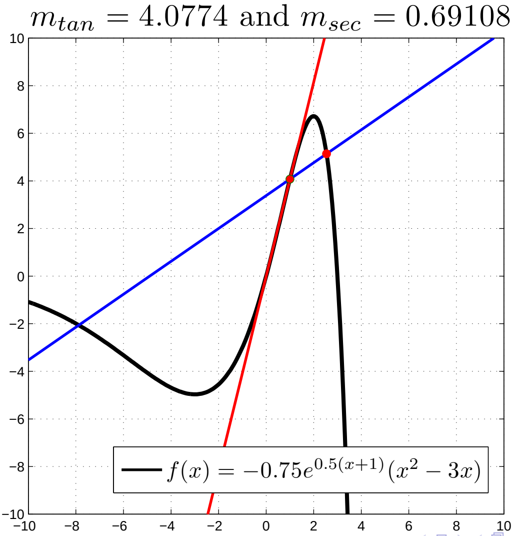

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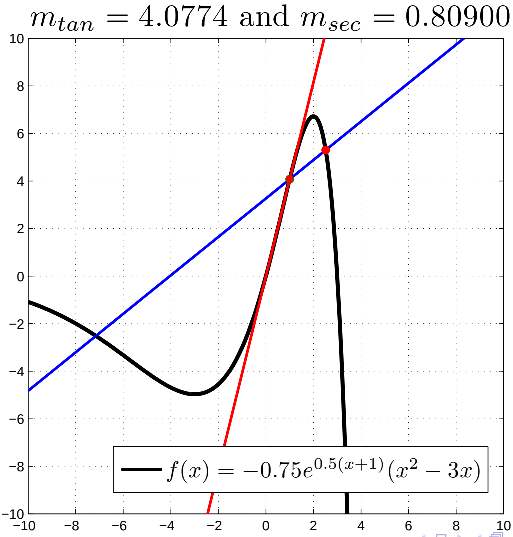

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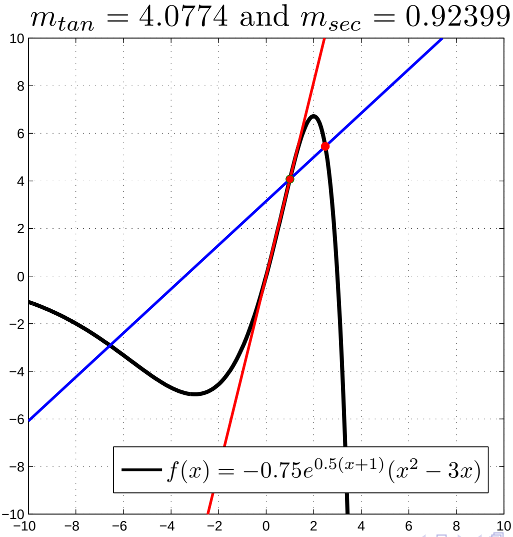

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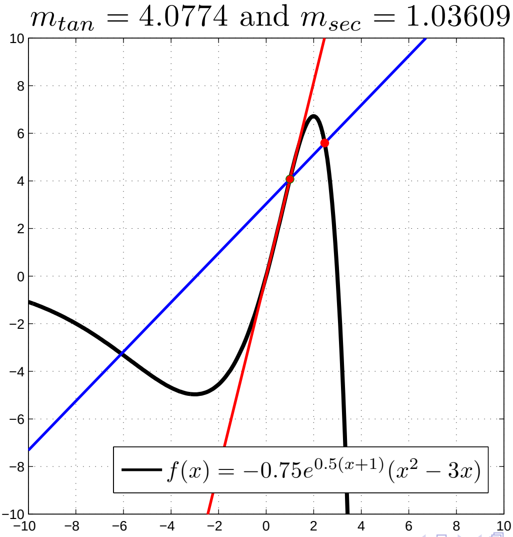

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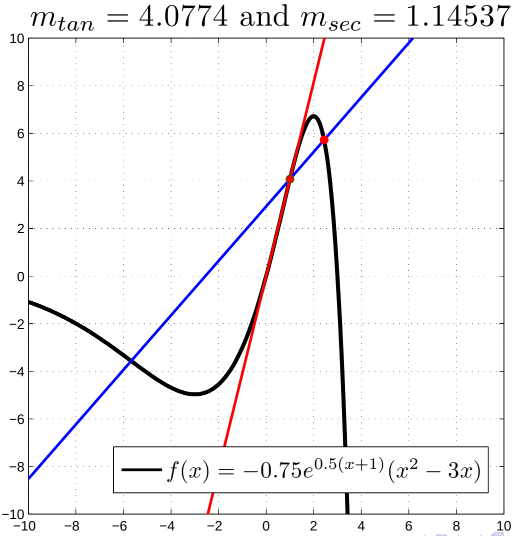

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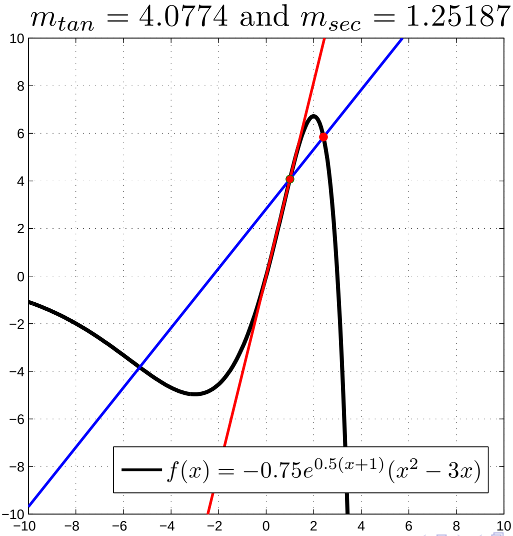

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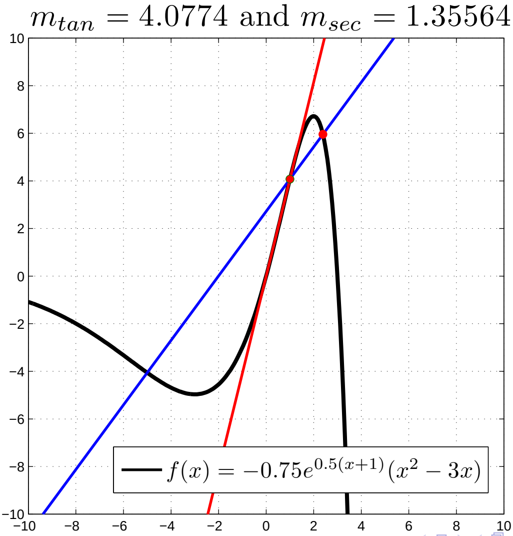

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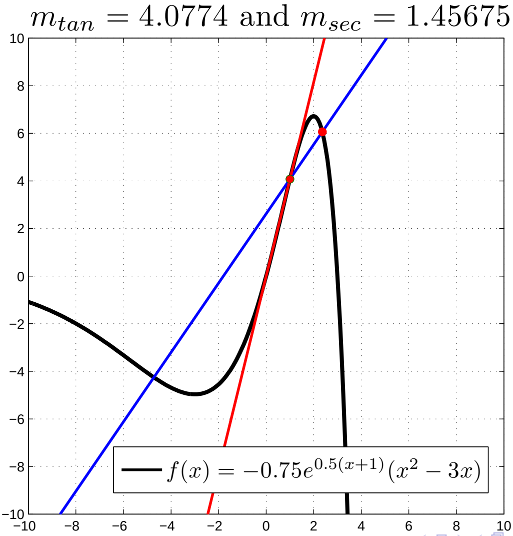

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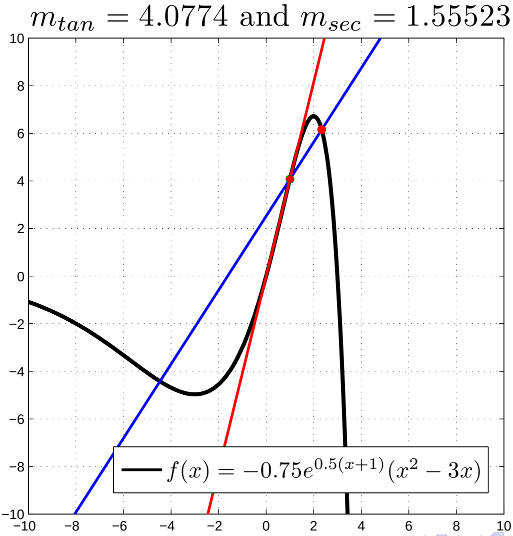

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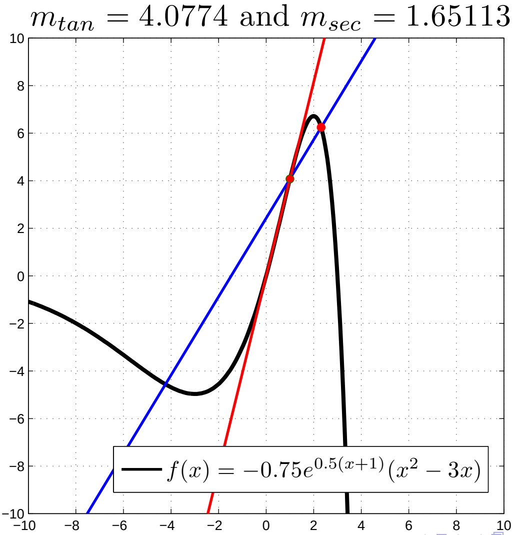

$m_{tan} = 4.0774$ and $m_{sec} = 1.65113$

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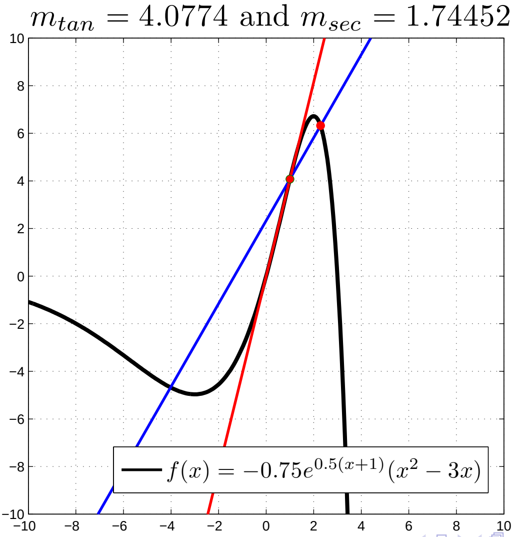

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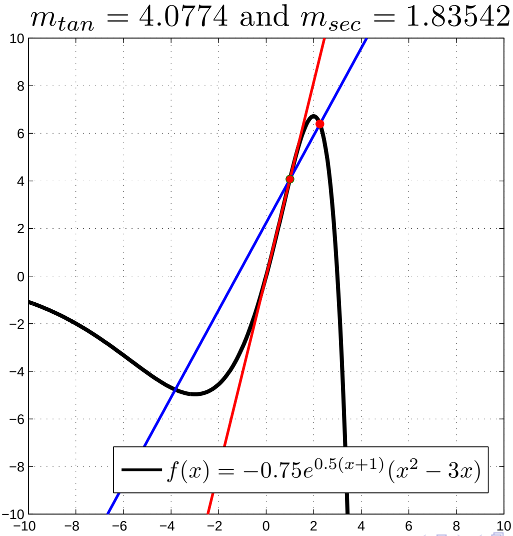

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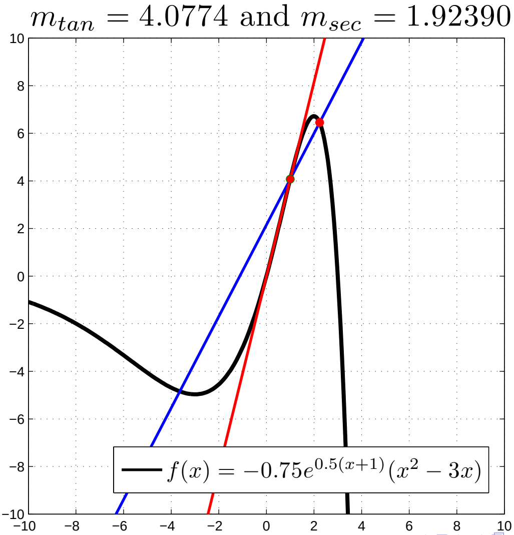

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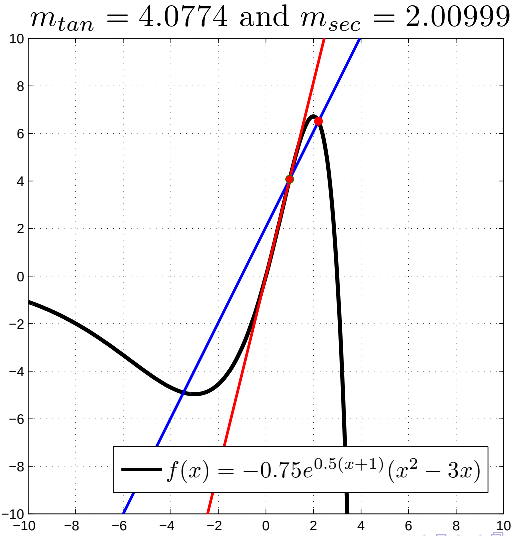

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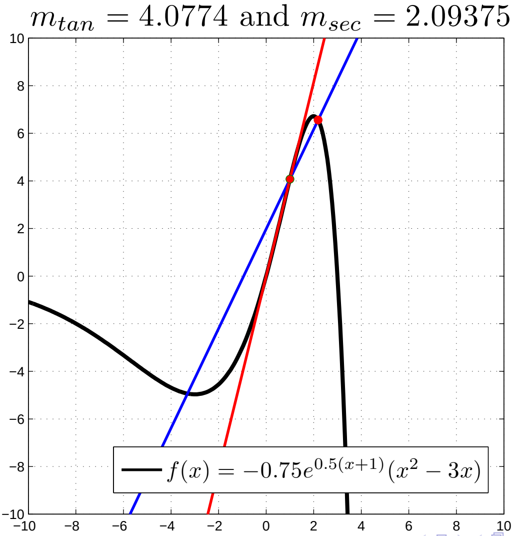

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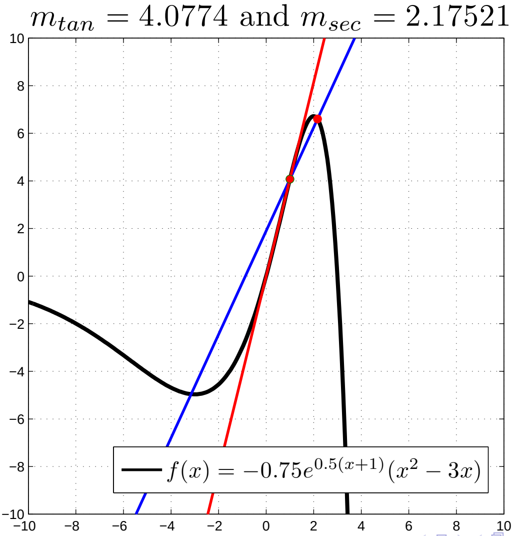

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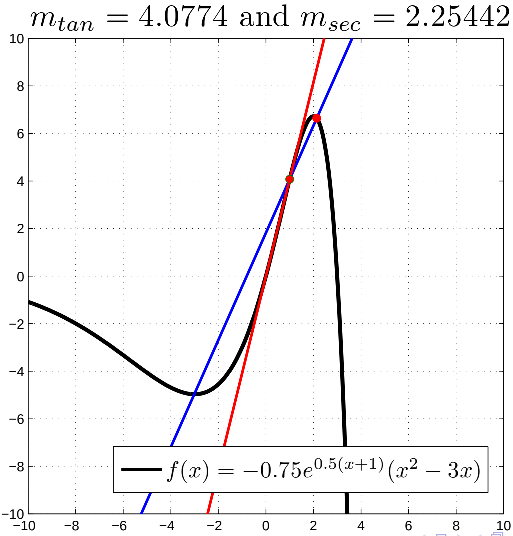

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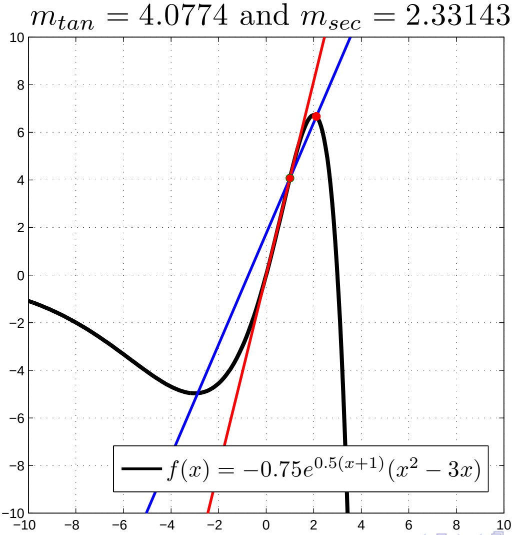

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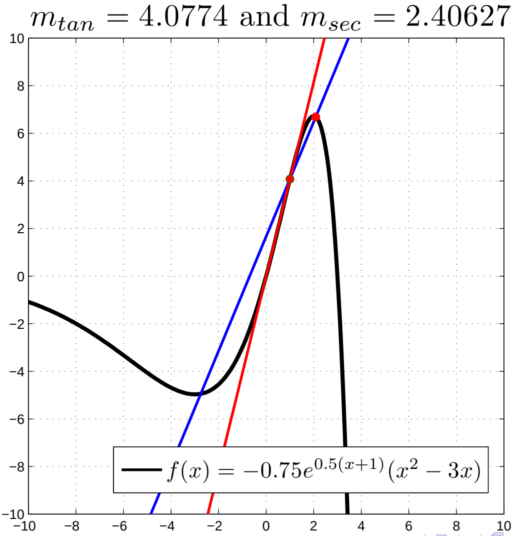

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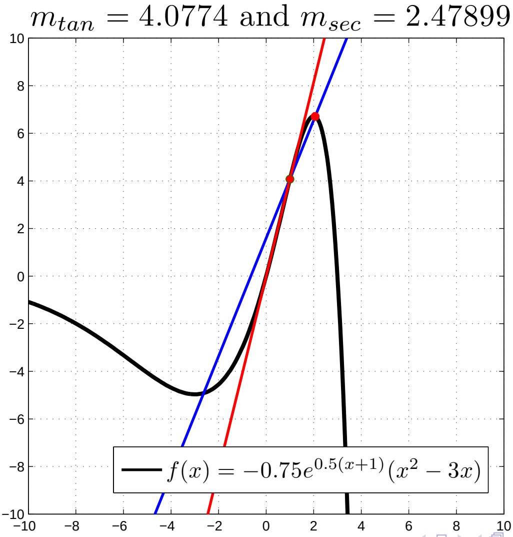

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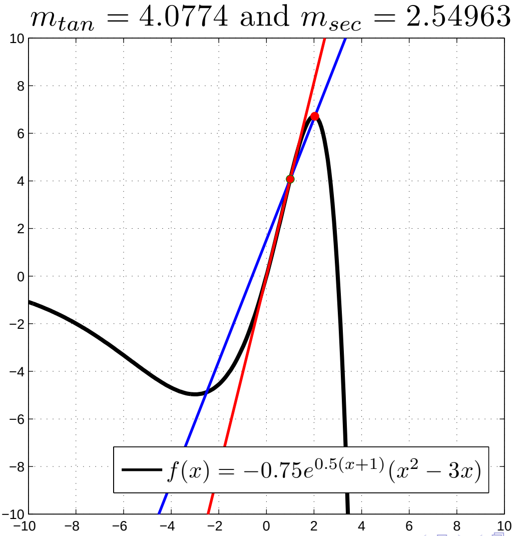

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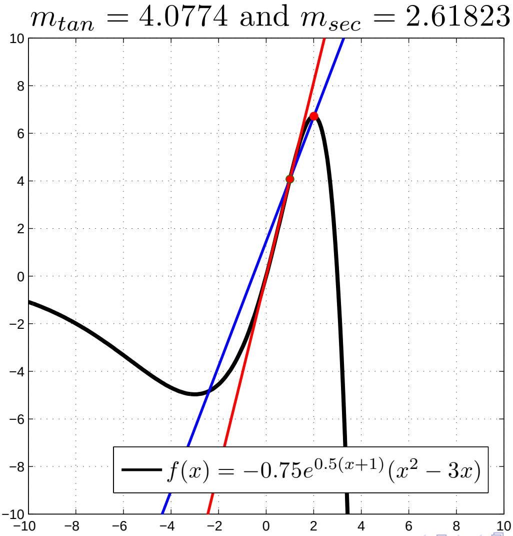

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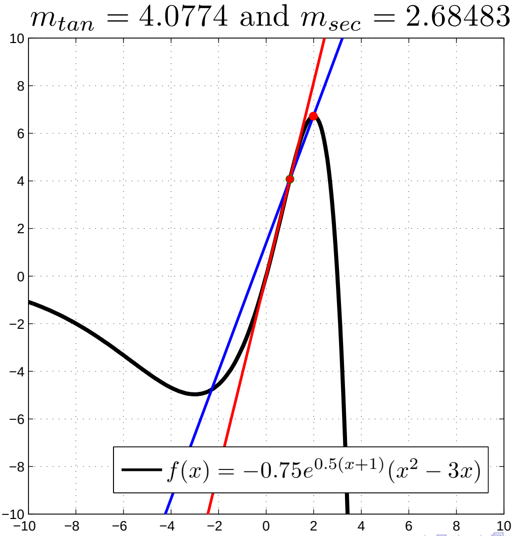

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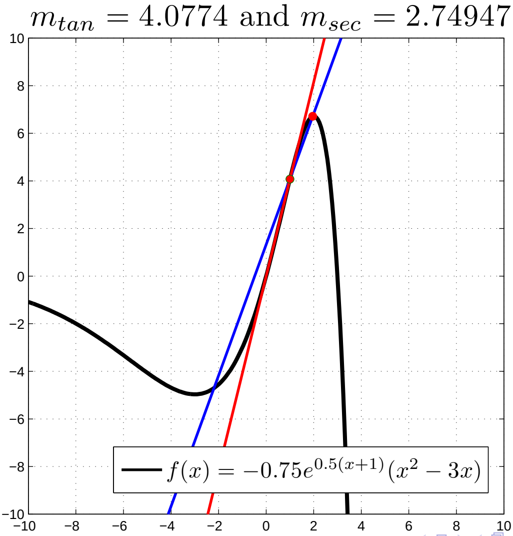
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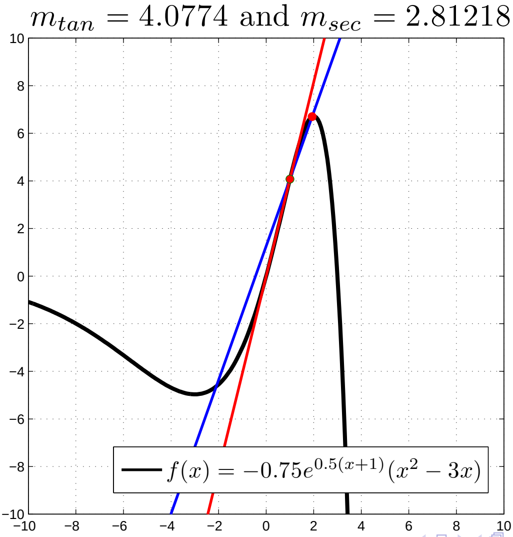

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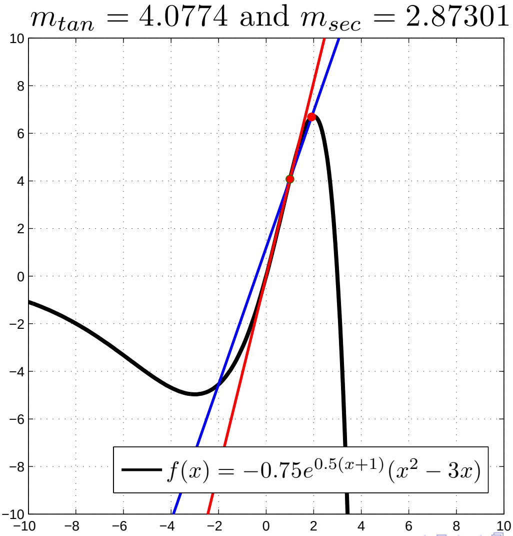

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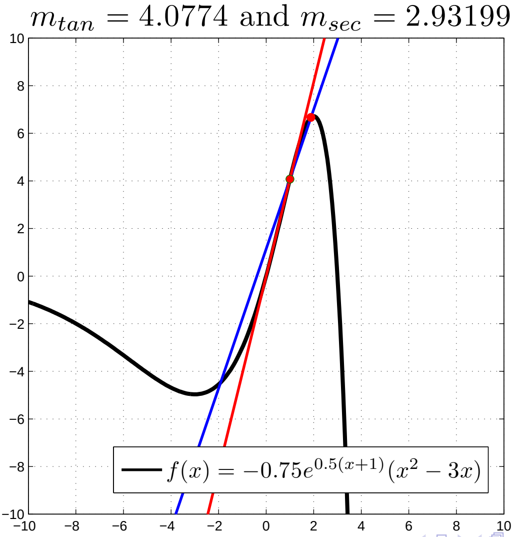

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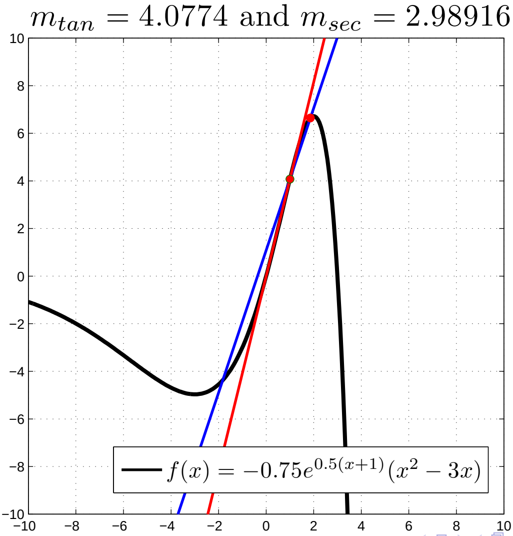

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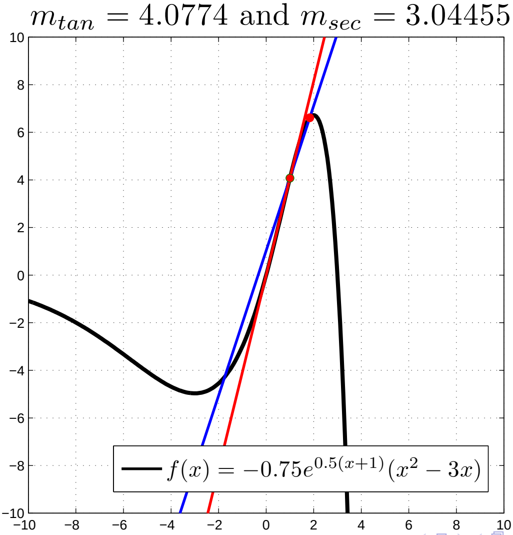

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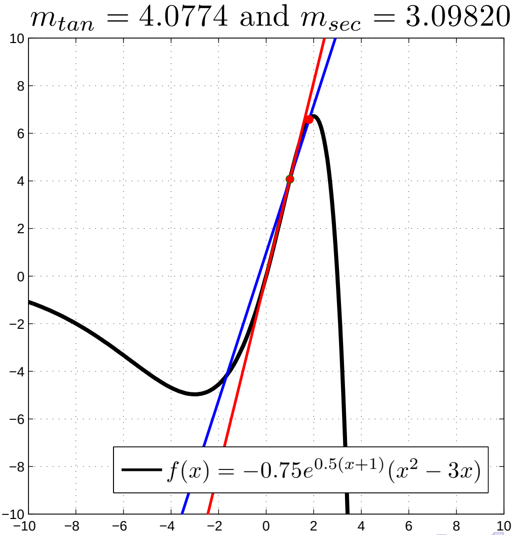

$m_{tan} = 4.0774$ and $m_{sec} = 3.09820$

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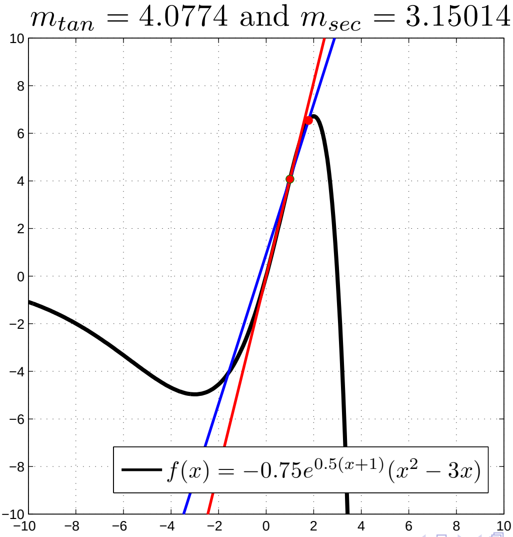

$m_{tan} = 4.0774$ and $m_{sec} = 3.15014$

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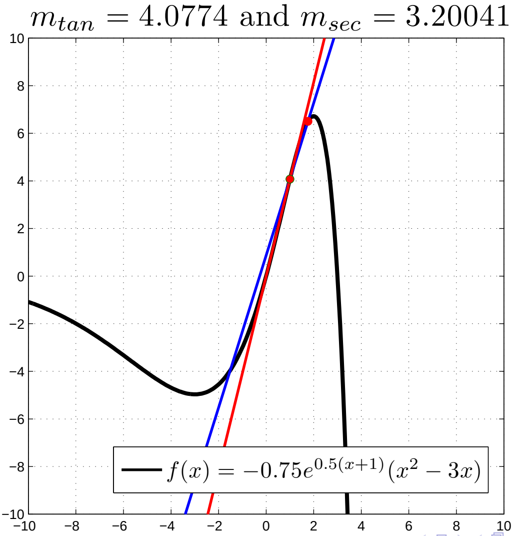

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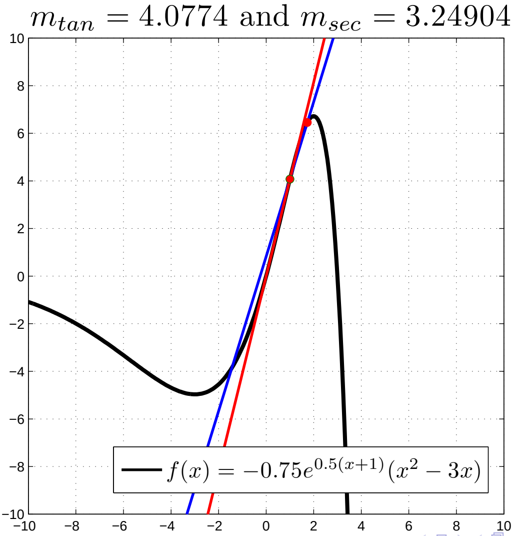

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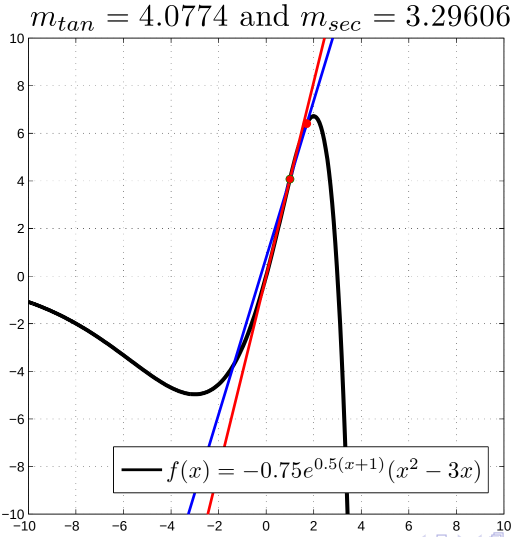

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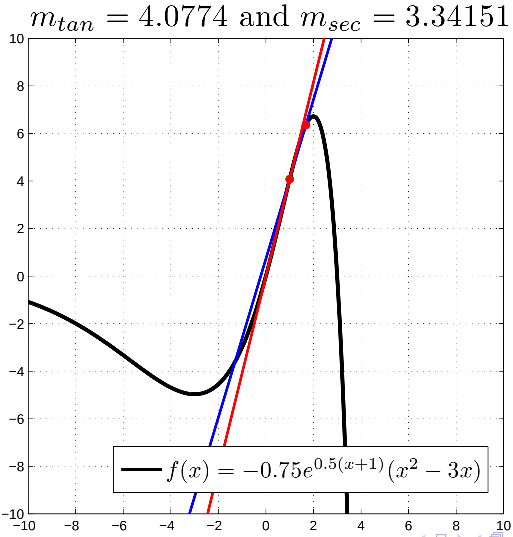

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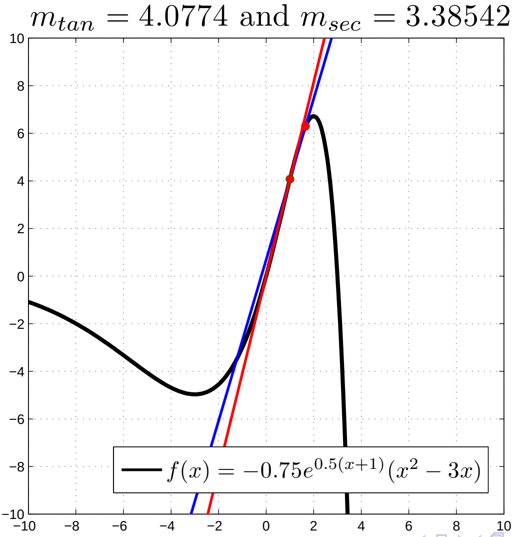

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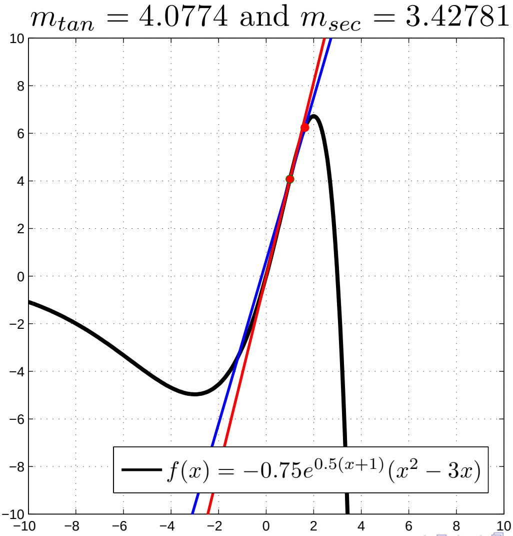

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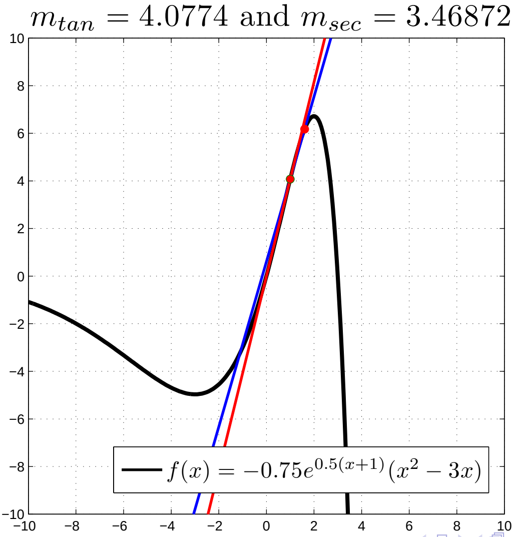

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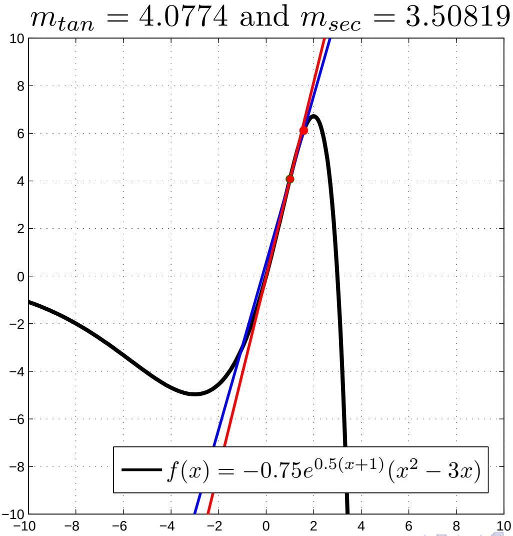

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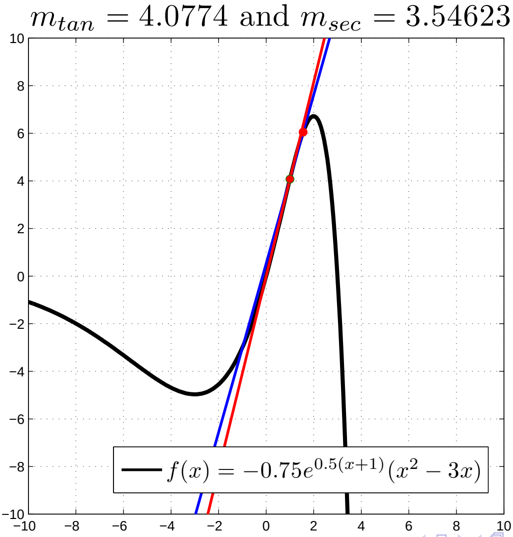

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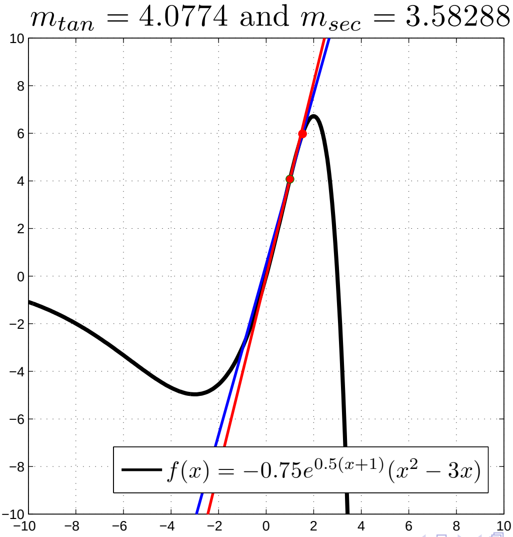

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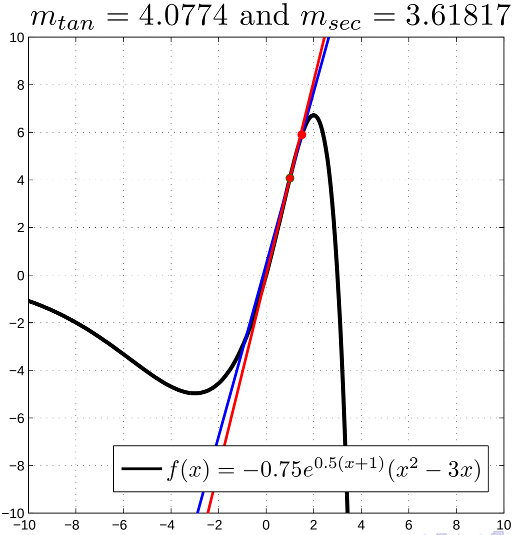

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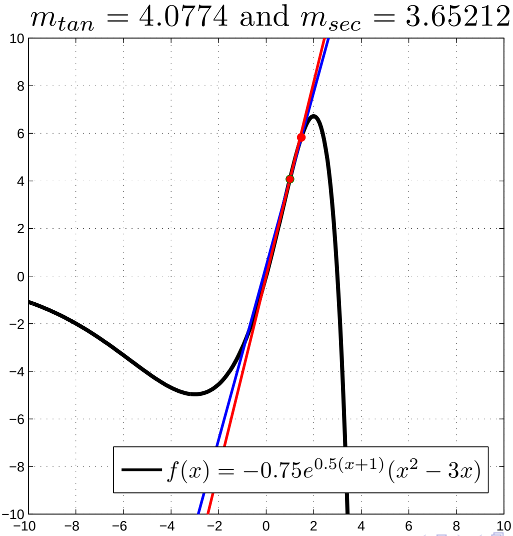

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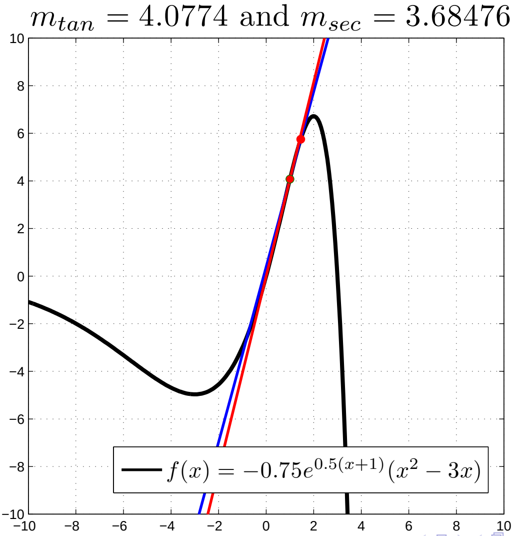

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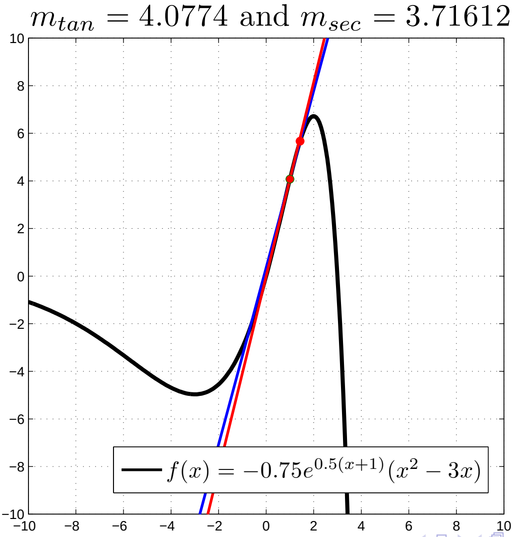

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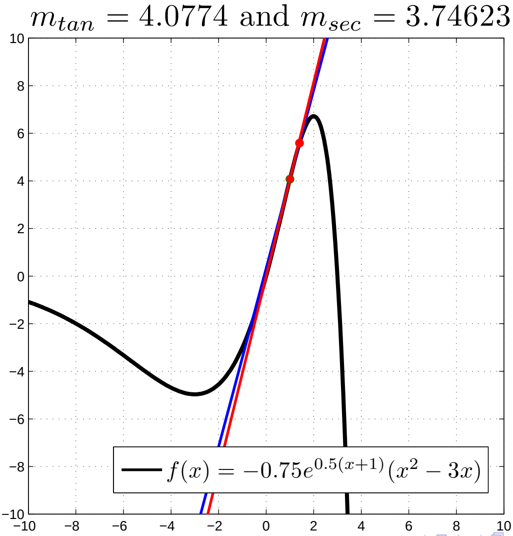

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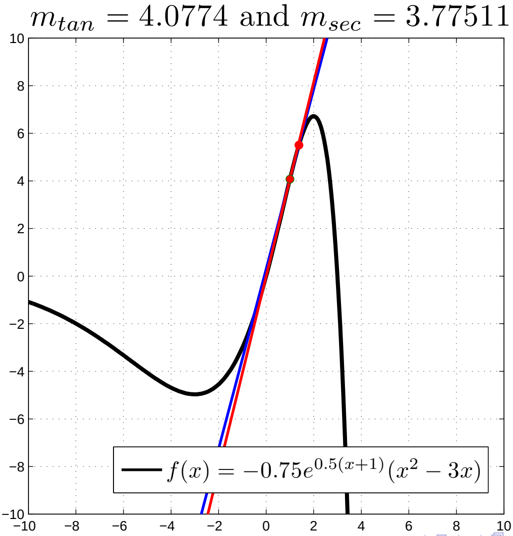

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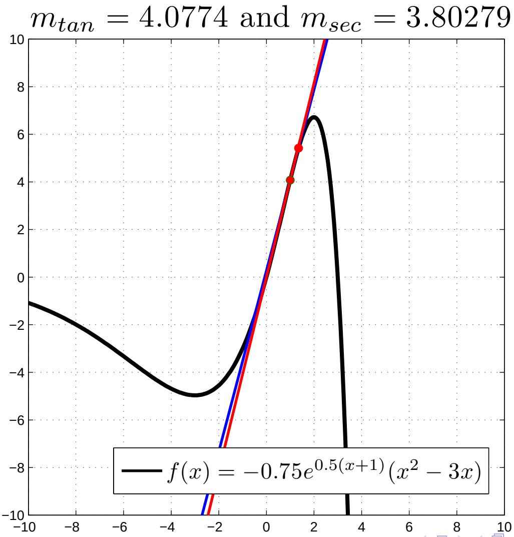

$m_{tan} = 4.0774$ and $m_{sec} = 3.80279$

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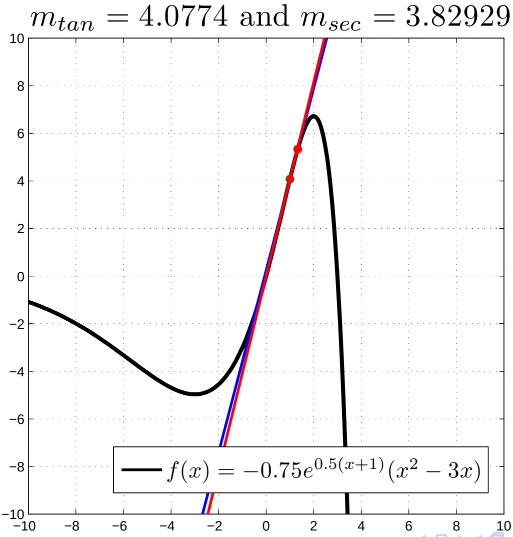

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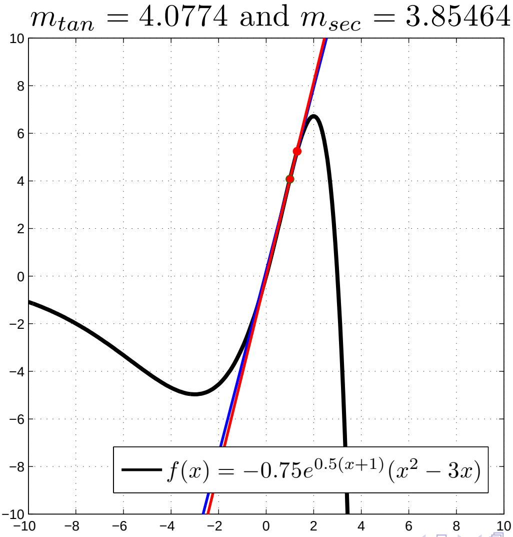

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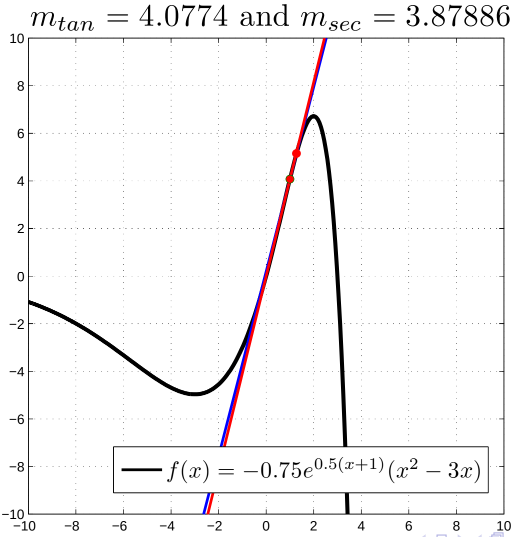

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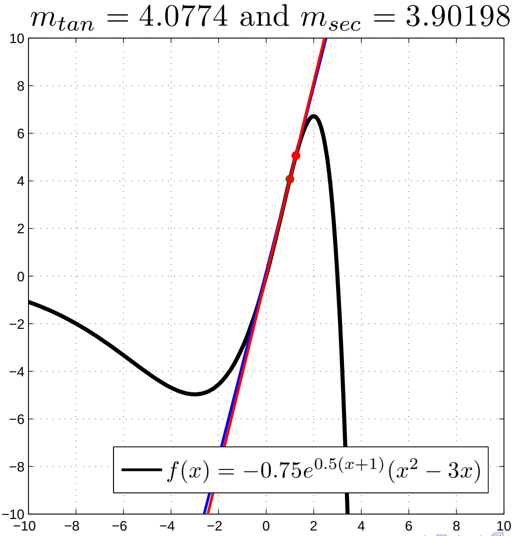

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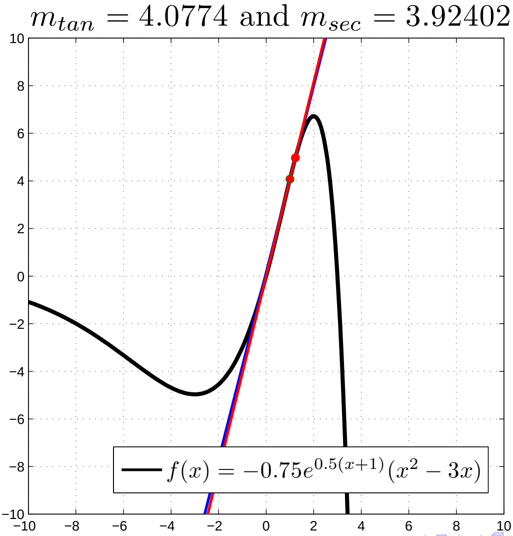

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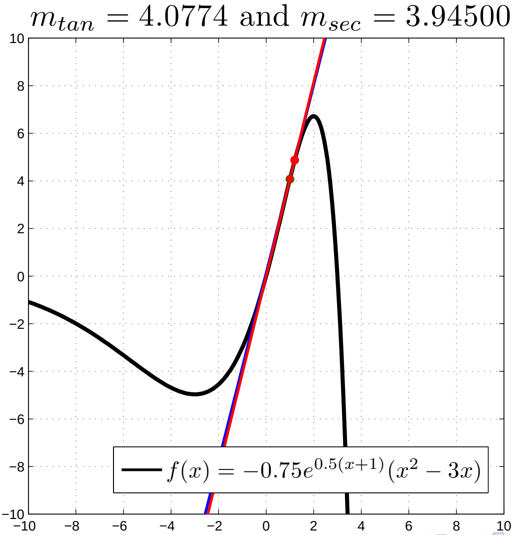

$m_{tan} = 4.0774$ and $m_{sec} = 3.94500$

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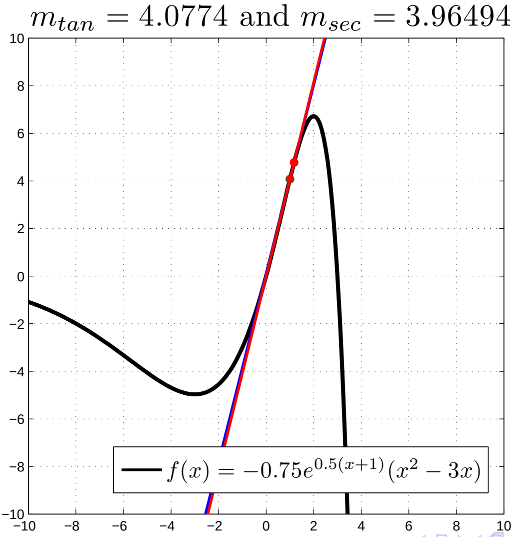

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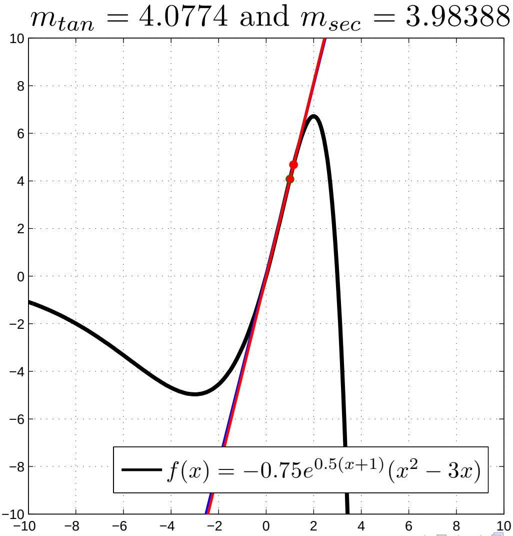

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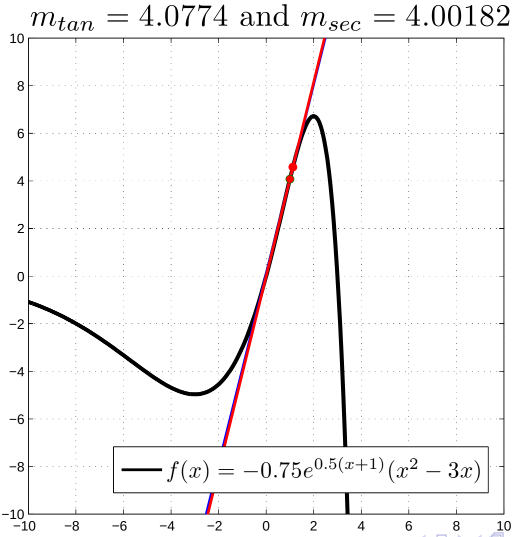

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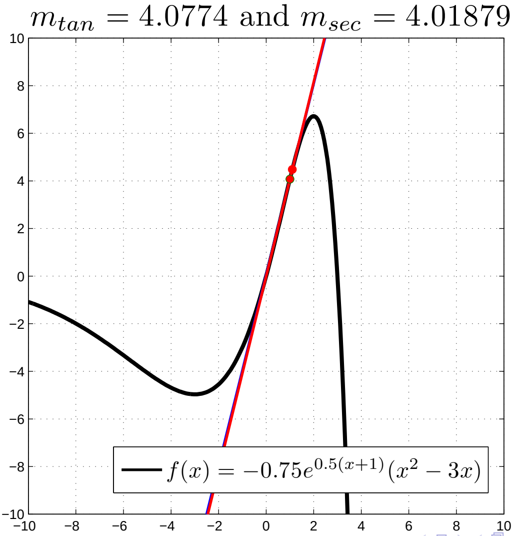

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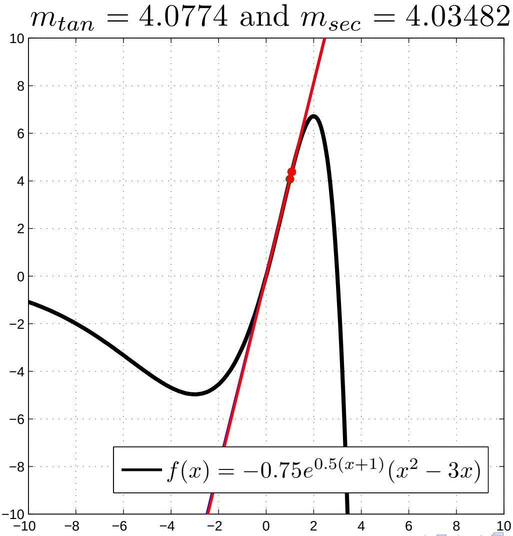

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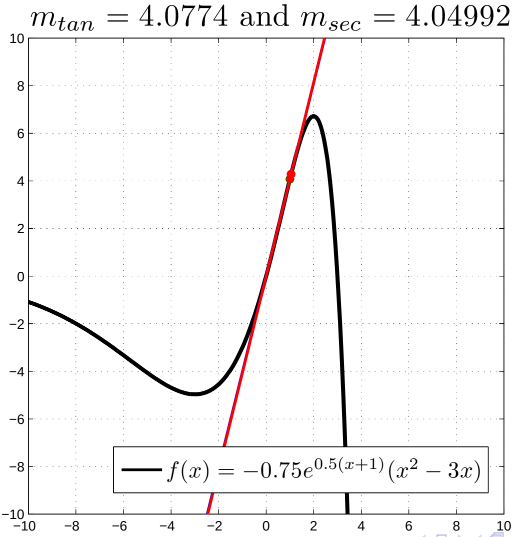

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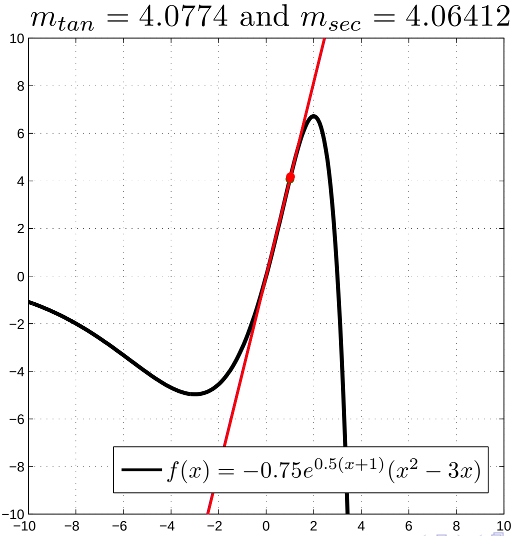

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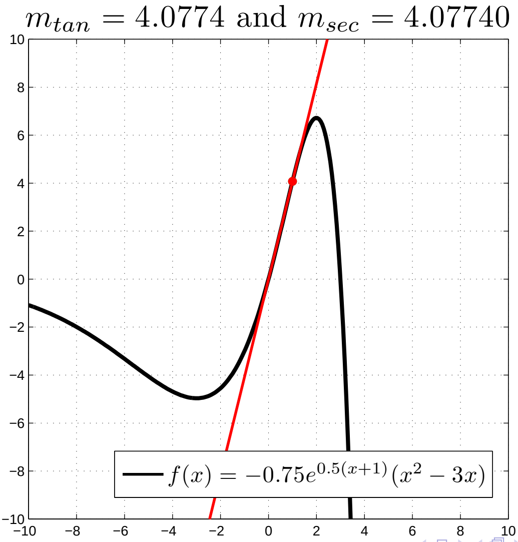

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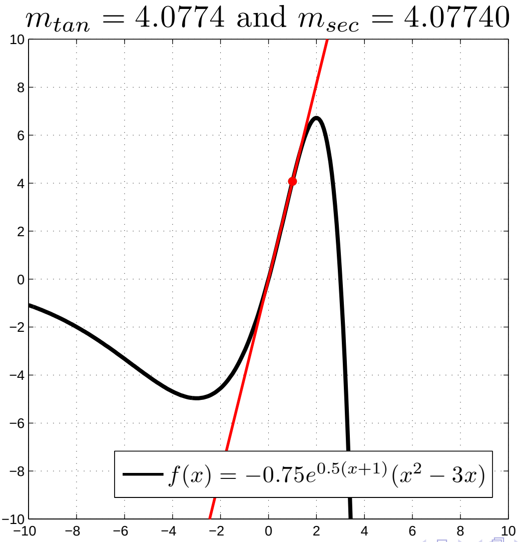
$m_{tan} = 4.0774$ and $m_{sec} = 4.07740$
10
8
6
4
2
0
−2
−4
−6
−8
−10
−10
−8
−6
−4
−2
0
2
4
6
8
10
$f(x) = -0.75e^{0.5(x+1)}(x^2 - 3x)$