QUIZ 6 - MATH 151 Friday, March 11

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Find the following limits:

   (a) $\lim_{x\to 2^-} e^{3/(2-x)}$

   (b) $\lim_{x\to(\pi/2)^+} e^{\tan x}$

2. Recall that $y = f(x)$ if and only if $x = f^{-1}(y)$. This relation suggests that, given a formula for $f(x)$, to find a formula for $f^{-1}(y)$, one needs to solve for x. Use this to find $f^{-1}(x)$, if $f(x) = \frac{4x-1}{2x+3}$.

3. Recall that $(f^{-1})'(x) = \frac{1}{f'(f^{-1}(x))}$. Use this to compute $(f^{-1})'(2)$, if $f(x) = x^5 - x^3 + 2x$.