10. (10 points) The rules for derivatives have some redundancies. **Do one of the following.**

   (a) Use the other rules for derivatives to derive the quotient rule.

   (b) Use the other rules for derivatives to derive the rules for b^x and $\log_b x$, and $\tan x$.

11. (10 points) Pick one of the following two functions and use the limit definition of the derivative to calculate its derivative. While it's a good way to check your work, **you will get zero points if you just use the power rule**.

$$a(x) = 3\sqrt{x} - 1 \qquad\qquad b(x) = x/2 - 2/x$$