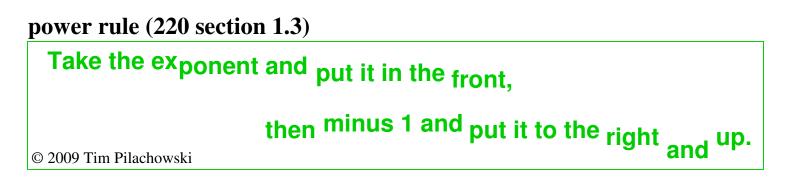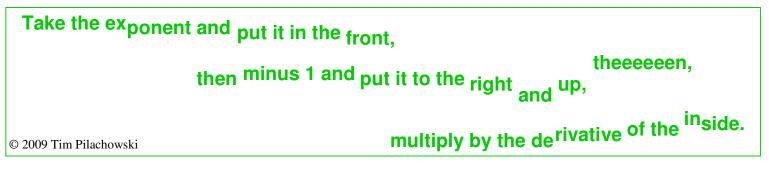# Calculus jingles – musical mnemonics for remembering various derivative rules

power rule (220 section 1.3)

Take the exponent and put it in the front,

then minus 1 and put it to the right and up.

general power rule (220 section 1.6) [chain rule applied to power functions]

Take the exponent and put it in the front,

then minus 1 and put it to the right and up, theeeeeen,

multiply by the derivative of the inside.

product rule (220 section 3.1)

Now let's use the pro*duct rule:

first times se-cond-prime plus second times first-prime.

quotient rule (220 section 3.1)

Start with the bottom times the top-prime minus the top times the bottom-prime;

put the whole thing over the bottom squared. That's the derivative of a quo-tient!

chain rule (220 section 3.2)

Diffe**rentiate the** **outside, put the** **inside back** **in,** **theeeeeen,**

multiply by the derivative of the **in**side.

derivatives of sine and cosine (221 section 8.3)

The de**rivative of sine** **is co**sine,

but the derivative of cosine is **nega**tive **sine.**