Section 5.3: cont'd

BAD MATH ALERT!

True or false?

① $\log(M-N) = \log M - \log N$ (F)

② $\log(M-N) = \dfrac{\log M}{\log N}$ (F)

③ $\log\left(\dfrac{M}{N}\right) = \dfrac{\log M}{\log N}$ (F)

④ $\dfrac{\log M}{\log N} = \dfrac{M}{N}$ (F)

⑤ $\dfrac{\log M}{\log N} = \dfrac{\ln M}{\ln N} = \log_N M$ (T)

note: base-change: $\boxed{\log_b C = \dfrac{\log_a C}{\log_a b}}$