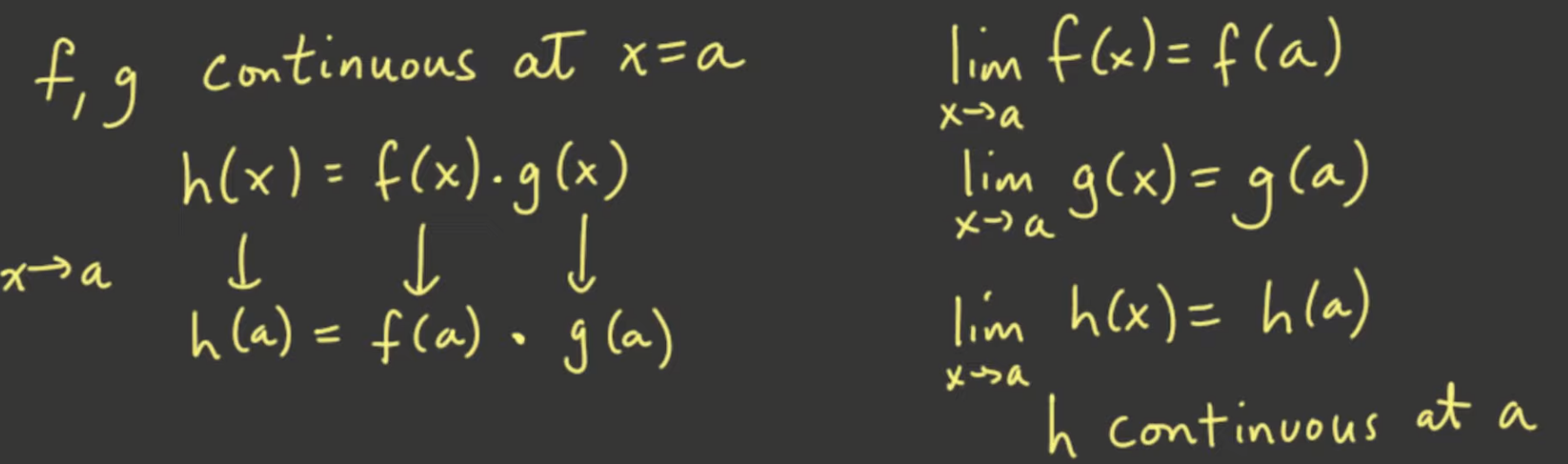
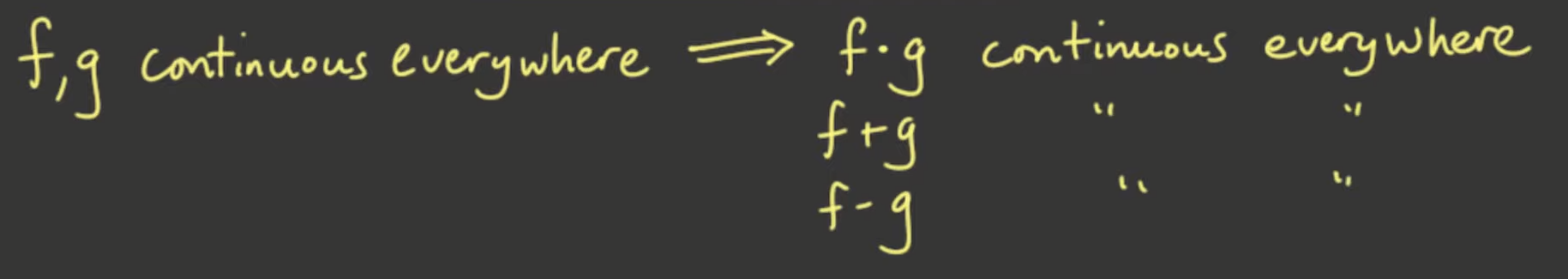
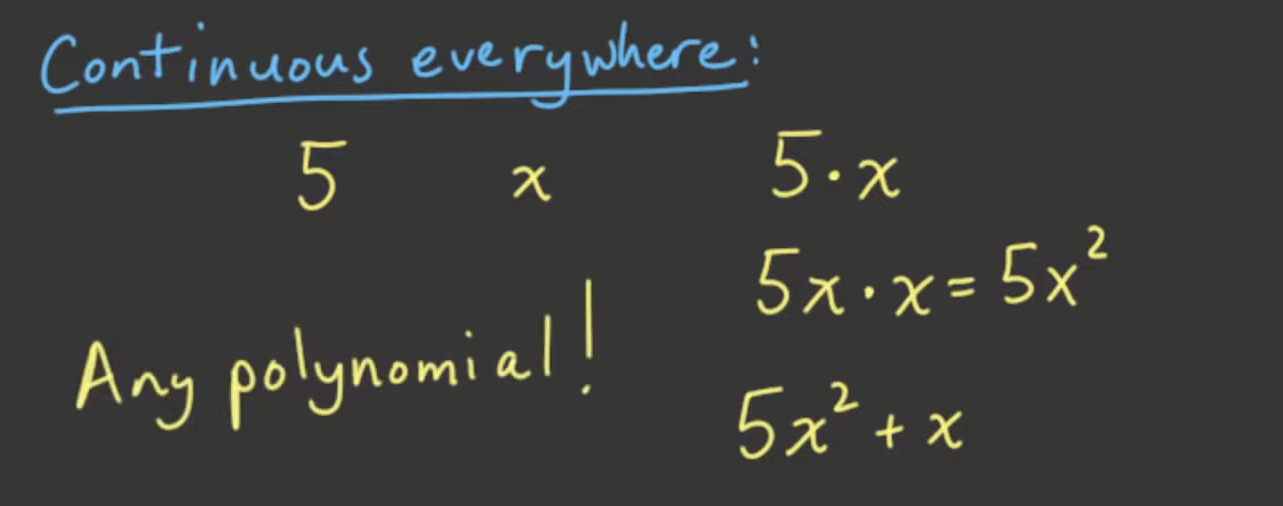


Limit laws and continuity





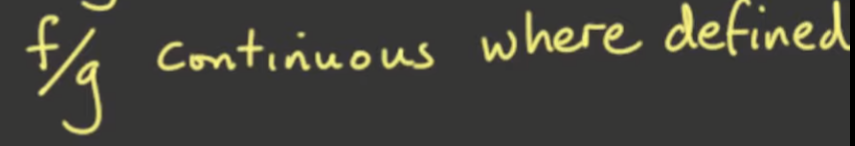
Applying these concepts of the limit laws: (addition, subtraction and multiplication)

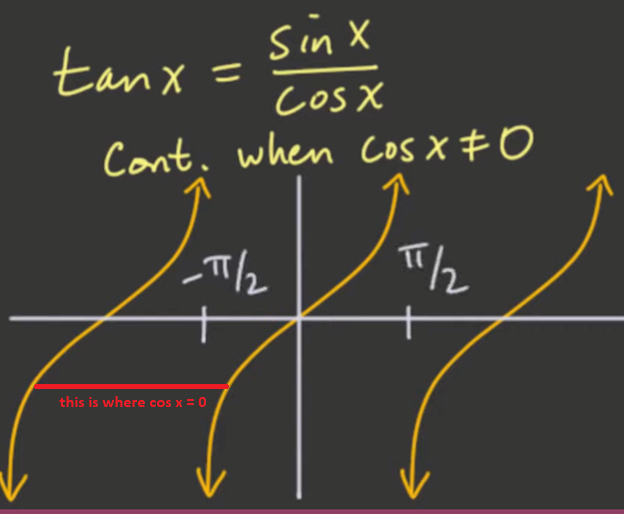


* If a constant is continuous everywhere and a single variable is continuous everywhere
  + Adding, multiplying, and subtracting it will result to continuity everywhere of the resulting function!
  + Basically any polynomial

For division:

* Continuous as long as the quotient is defined



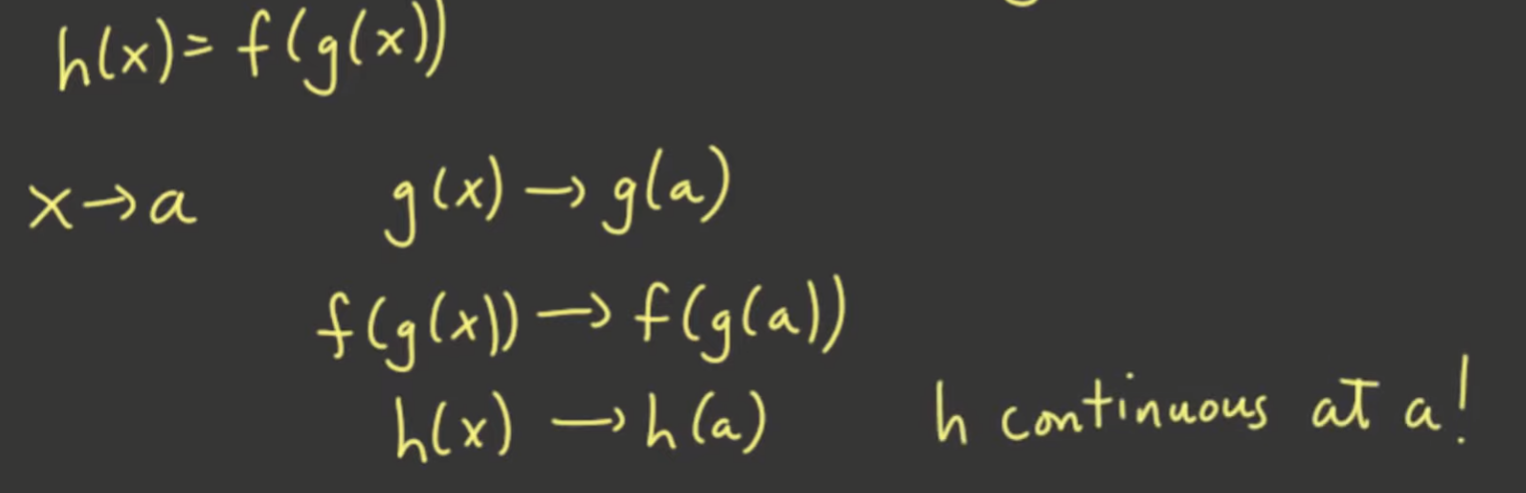




* Because its denominator will never be 0

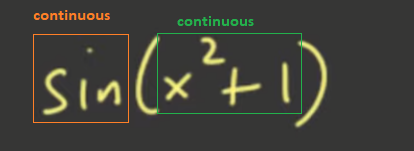
Continuity of Composite Functions





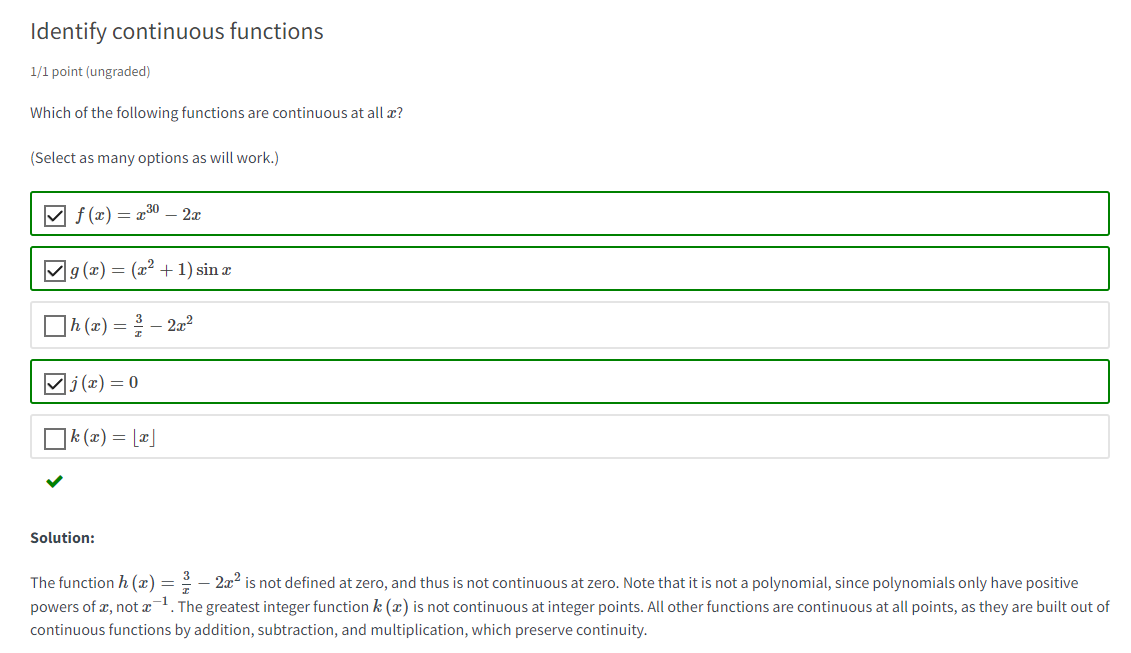
* As long as f and g are continuous everywhere

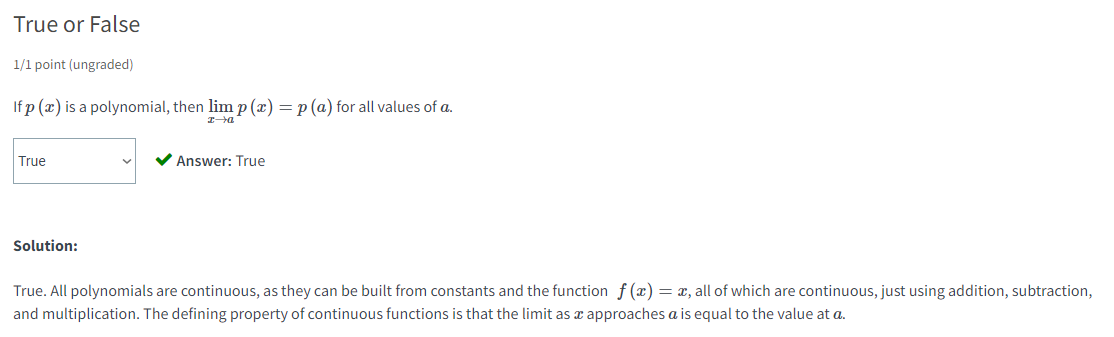
Example of composite functions that are continuous:

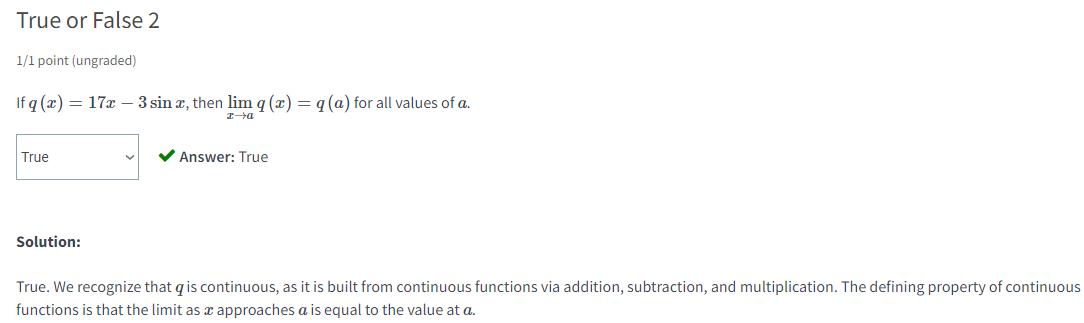


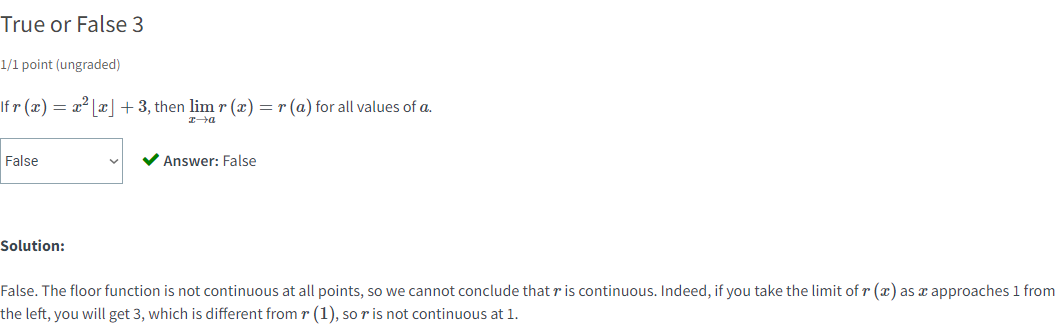
* Therefore: this is continuous!

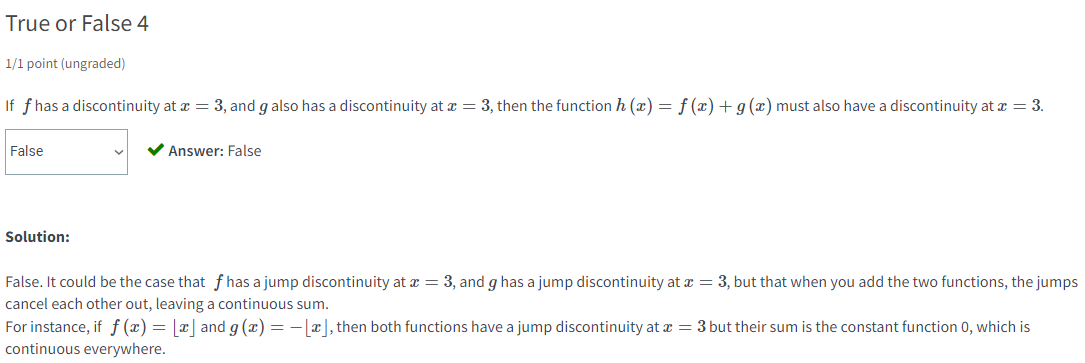
Review:











* Note: limit laws only applicable on CONTINUITY not DISCONTINUITY