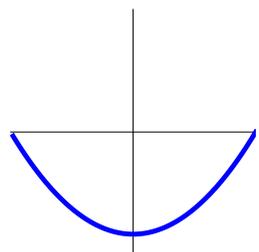
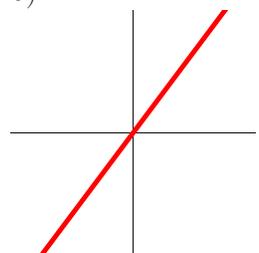


Lecture 8: Worksheet

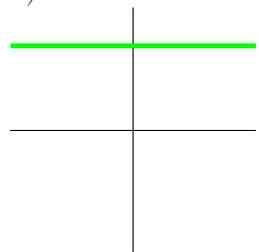
Matching functions with their derivative



0)



o)

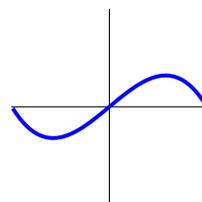


O)

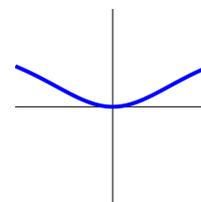
In this worksheet we want to match the graphs of functions with their derivatives and second derivatives. This is tougher than you might think. Here is an example:

The first graph shows the function, which is here the quadratic function. The slope on the right hand side is positive and increasing, on the left hand side the function is negative and decreasing. The middle graph shows the derivative function which is linear. The final graph shows the derivative function of the derivative function. It is constant in this case.

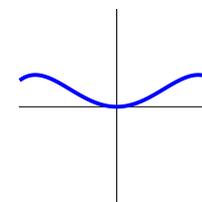
1 Match the following functions with their derivatives and then with the derivatives of the derivatives.



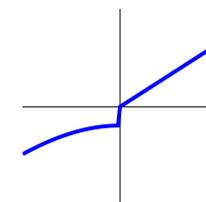
a)



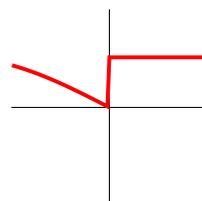
b)



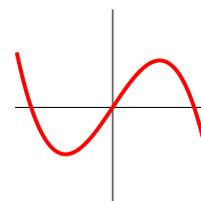
c)



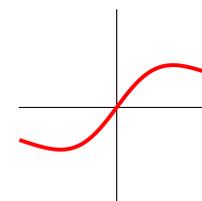
d)



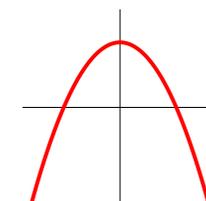
1)



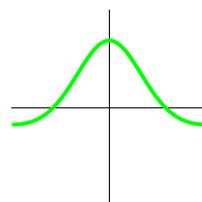
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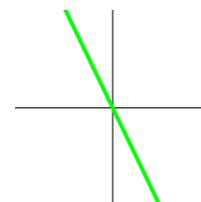
3)



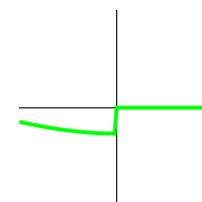
4)



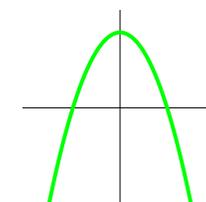
A)



B)



C)



D)