1.

(a)



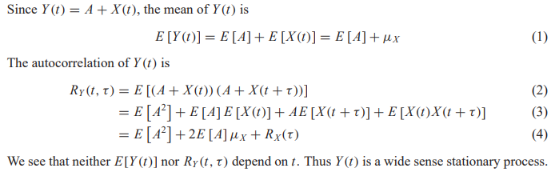
(b)



2.



3. 

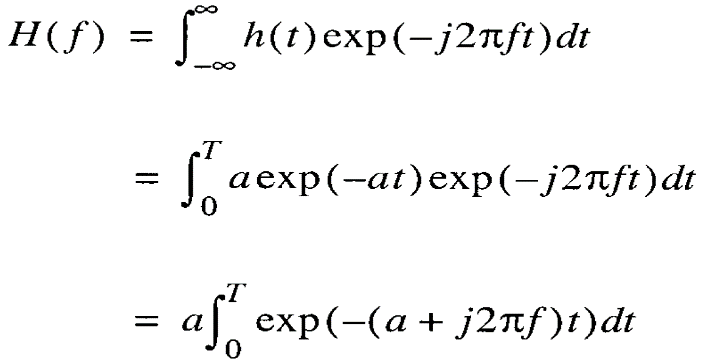
4. 

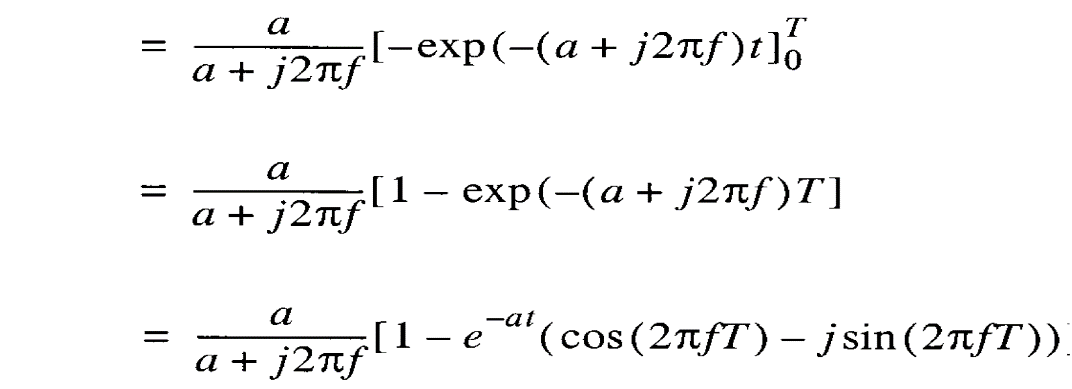
5.

We are giver a filter with the impulse response



The frequency response of the filter is therefore





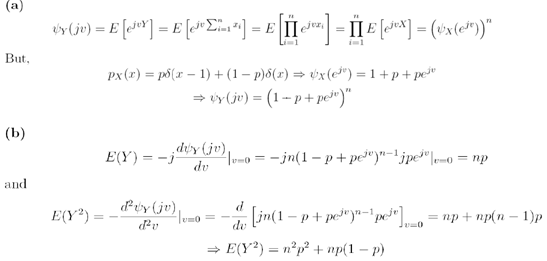
The squared magnitude response is



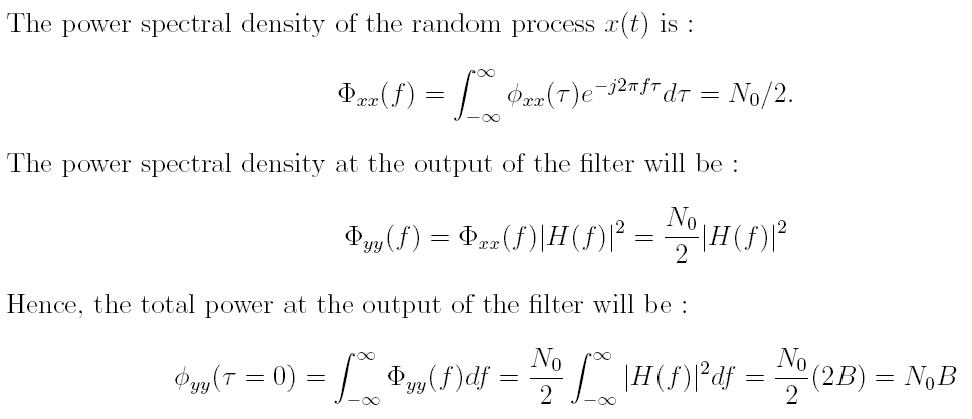
Correspondingly, we may write



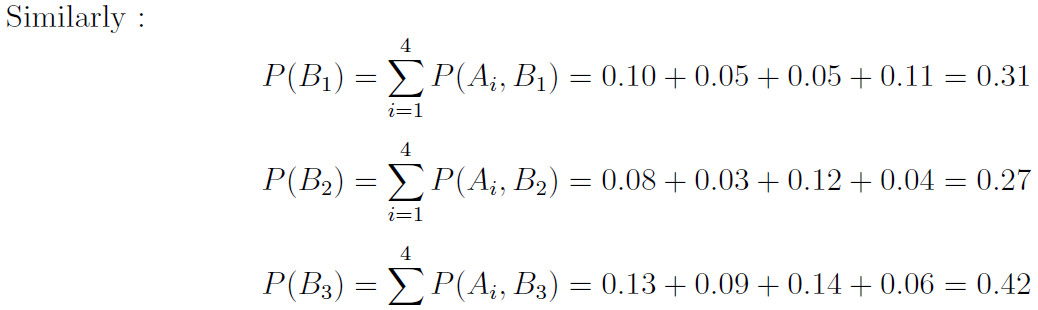
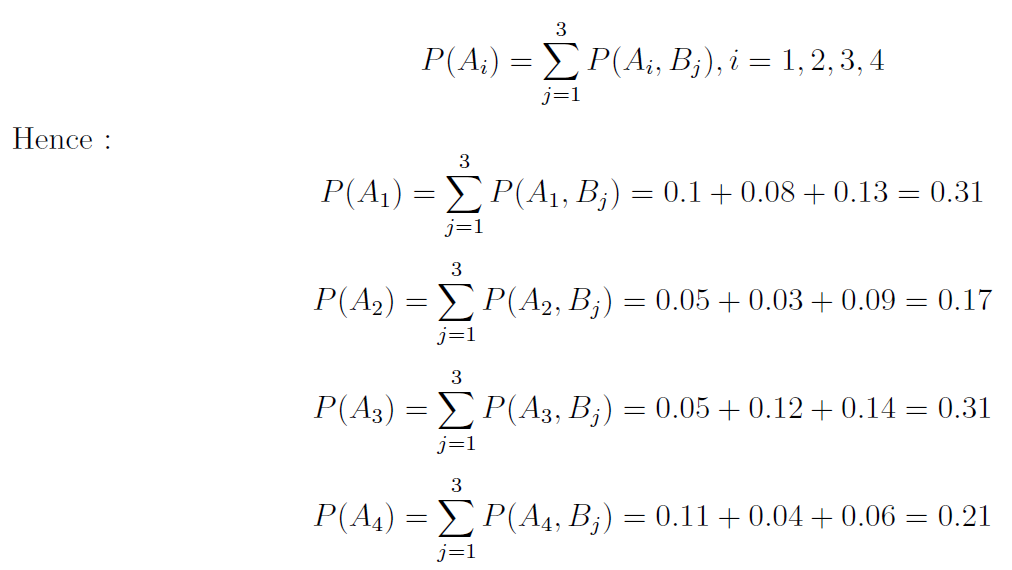
6.



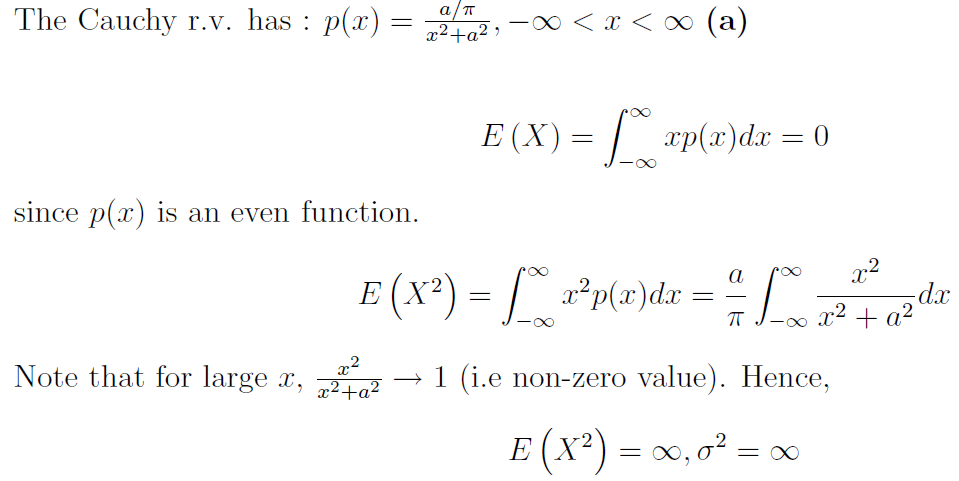
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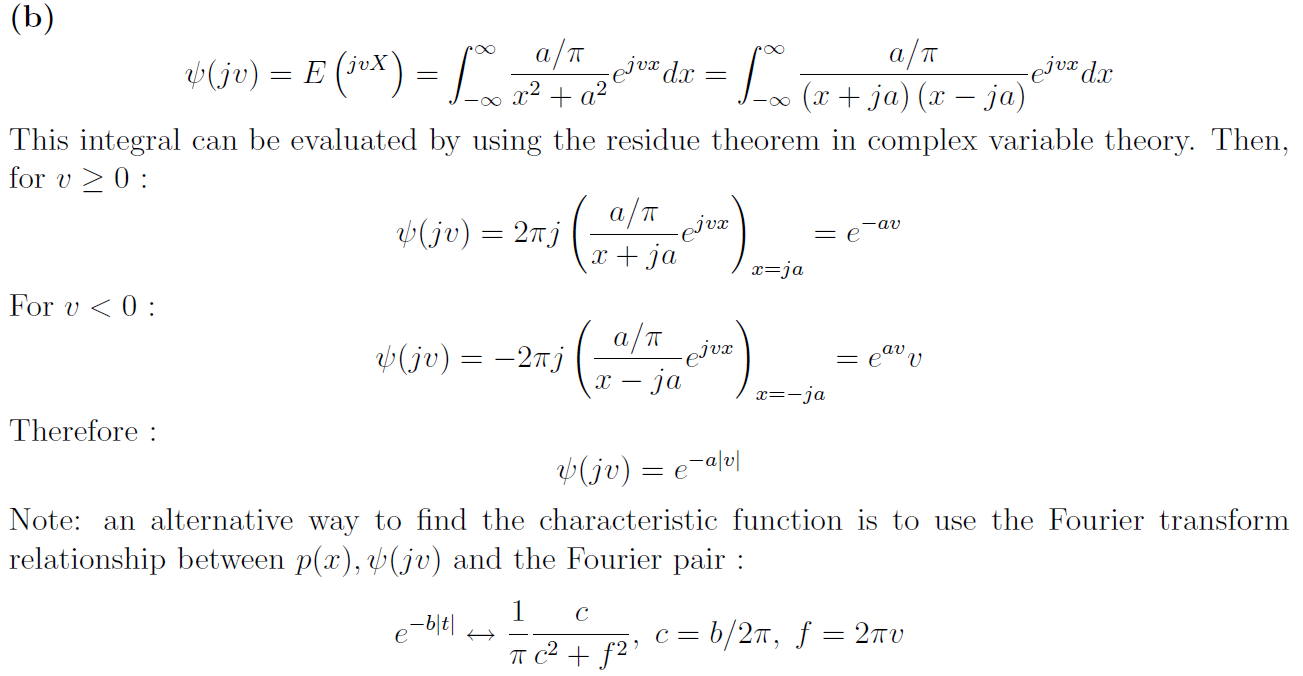
7.

8.



9.





10.

