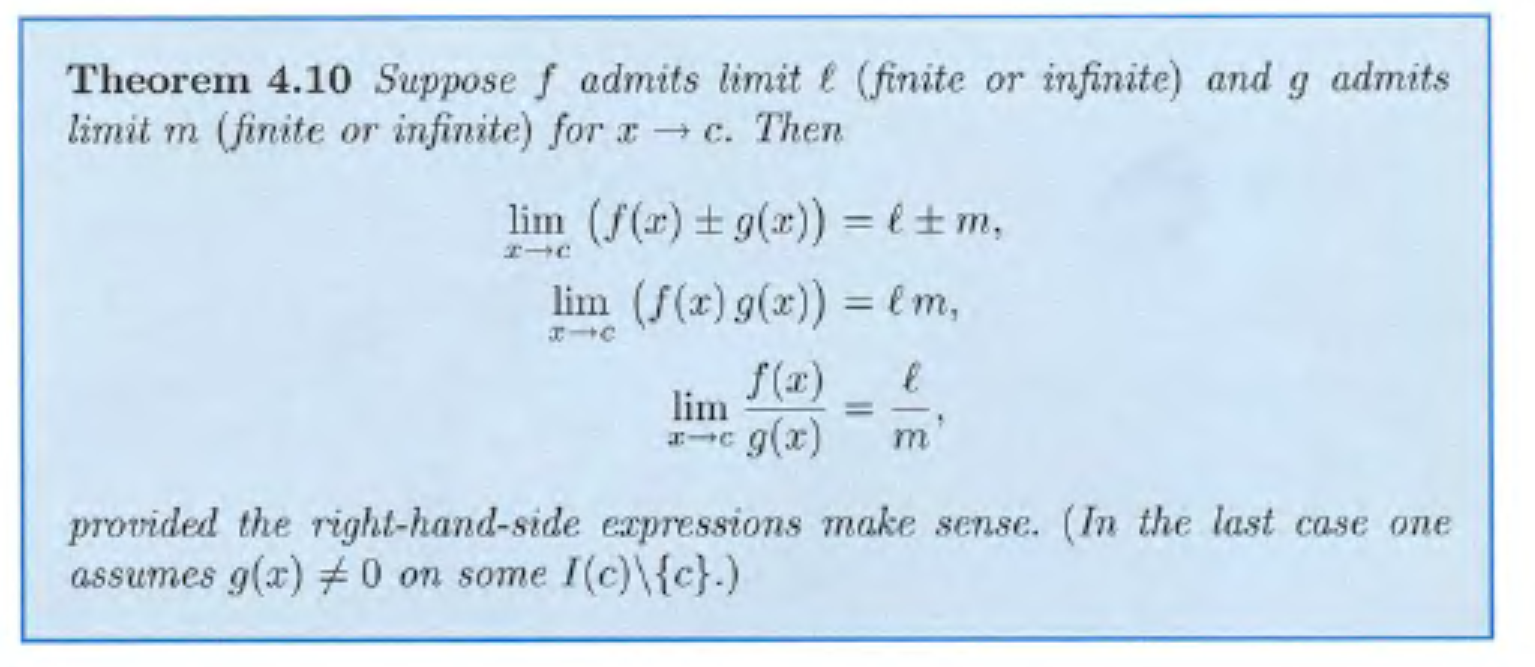
**12-Mavzu. Ikki funksiya yig’indisi, ko’paytmasi, bo’linmasining limiti. Murakkab funksiyaning limiti.**

**REJA**

1. **Ikki funksiyaning yig’indisi va ayirmasining limiti**
2. **Ikki funksiyaning ko’paytmasi va bo’linmasining limiti**
3. **Murakkab funksiyaning limiti**



**Ikki funksiya yig’indisi, ko’paytmasi, bo’linmasining limiti.[[1]](#footnote-1)**

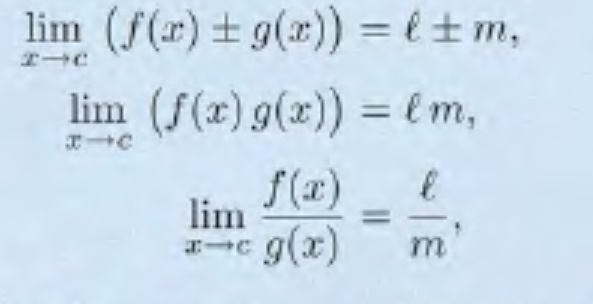
**1-teorema** . *A*gar  va  bo’lsa, u holda

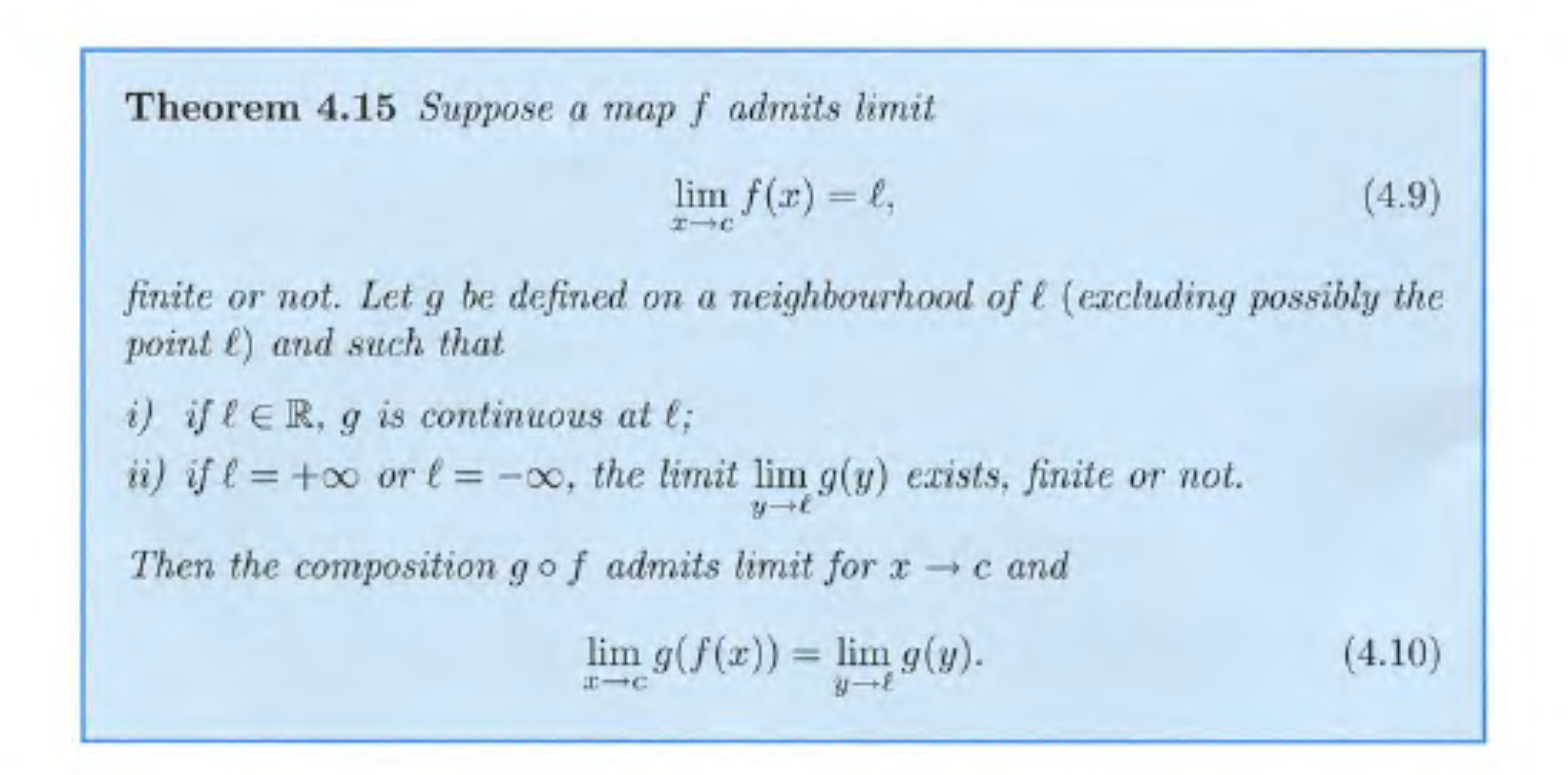
**a)** 

**b)** 

**c)**

Bu xossalarning isboti limitning Koshi va Geyne ta’riflari hamda yaqinlashuvchi ketma-ketliklarning arifmetik xossalaridan bevosita kelib chiqadi.





**Murakkab funksiyaning limiti[[2]](#footnote-2)**. ,  funksiyalardan tuzilgan  murakkab funksiya berilgan bo’lsin.  bo’lib,  son  to’plamning limit nuqtasi bo’lsin.

**1-teorema.** Agar  va  limitlar mavjud bo’lsa,  da  limit ham mavjud bo’lib,  bo’ladi.

Teoremani isbotini limit tahriflaridan keltirib chiqarish mumkin.(isbotlang)

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1. Сlaudio Canuto, Anito Tabacco. Mathematical analysis I.96-p [↑](#footnote-ref-1)
2. Сlaudio Canuto, Anito Tabacco. Mathematical analysis I.102-103p [↑](#footnote-ref-2)