Министерство образования Республики Беларусь

Учреждение Образования

БЕЛОРУССКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ

ИНФОРМАТИКИ И РАДИОЭЛЕКТРОНИКИ

Кафедра инфокоммуникационных технологий

Основы теории сигналов

Лабораторная работа № 2, 3

Вариант 1

«**Представление прямоугольных (треугольных) имппульсов рядом Котельникова**»

Проверил: Выполнили:

Беленкевич Н.И. ст. гр. 362201

Струнец А.П

Голуб Я.В

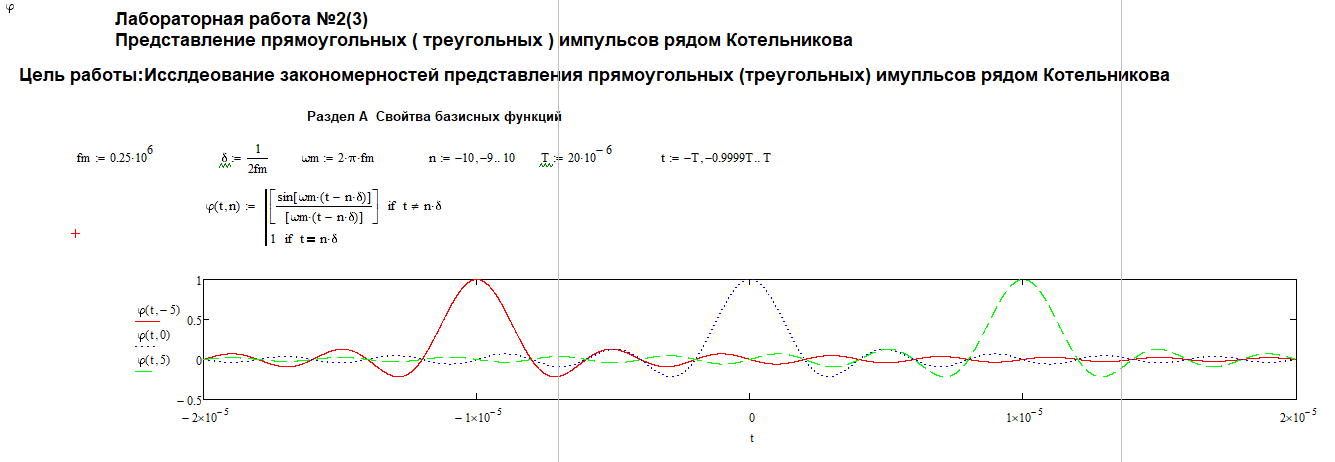
Минск 2024

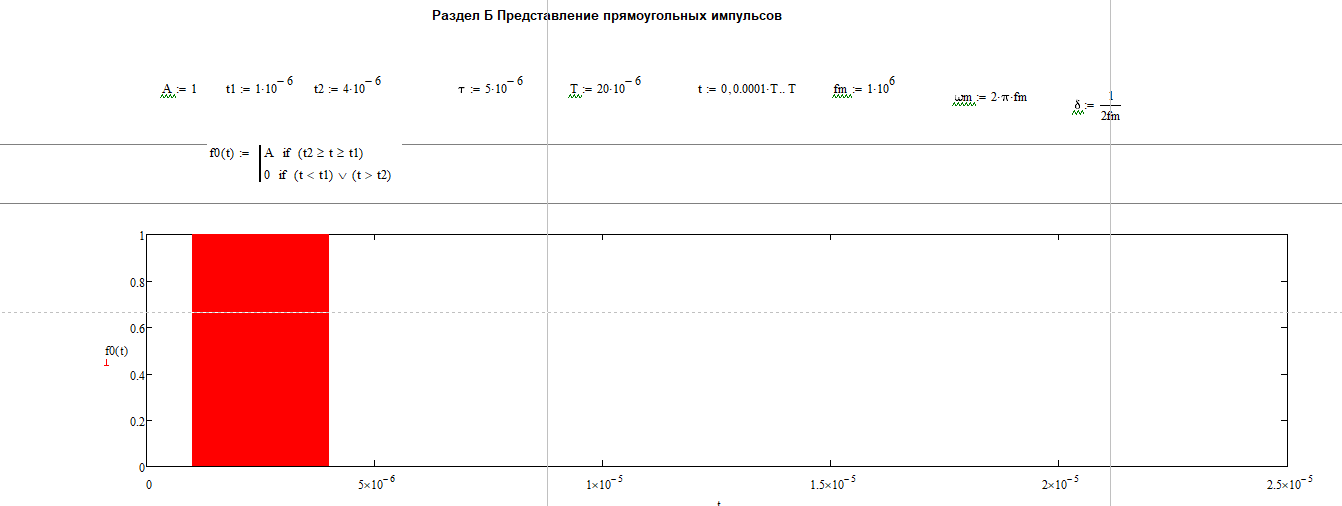
**1** **Цель работы**

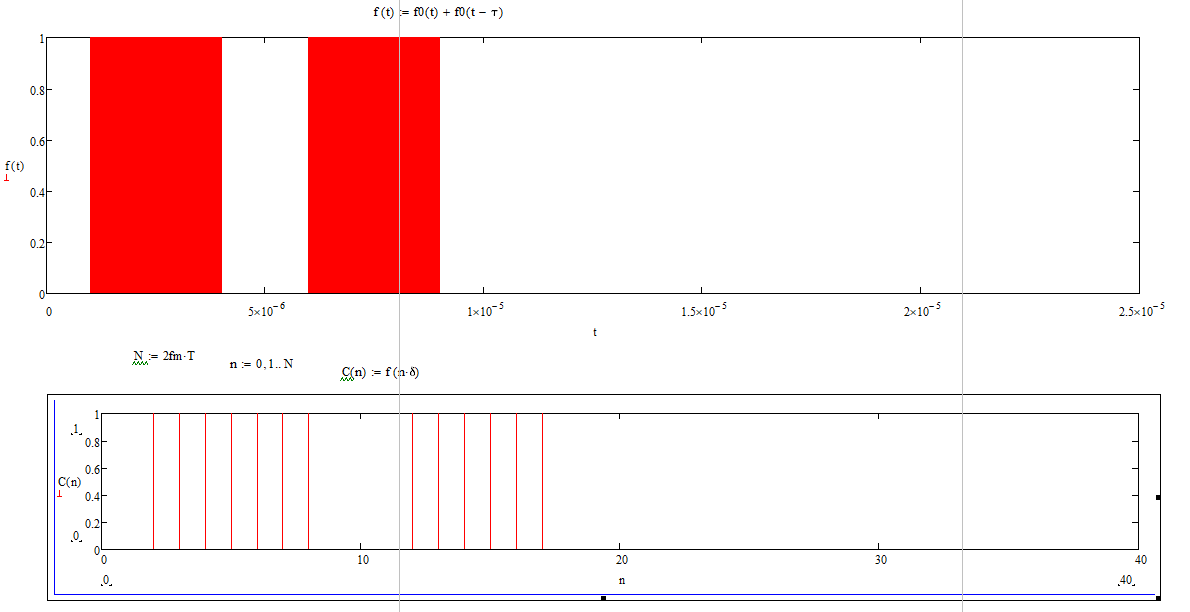
Исследование закономерностей представления прямоугольных (треугольных) импульсов рядом Котельникова

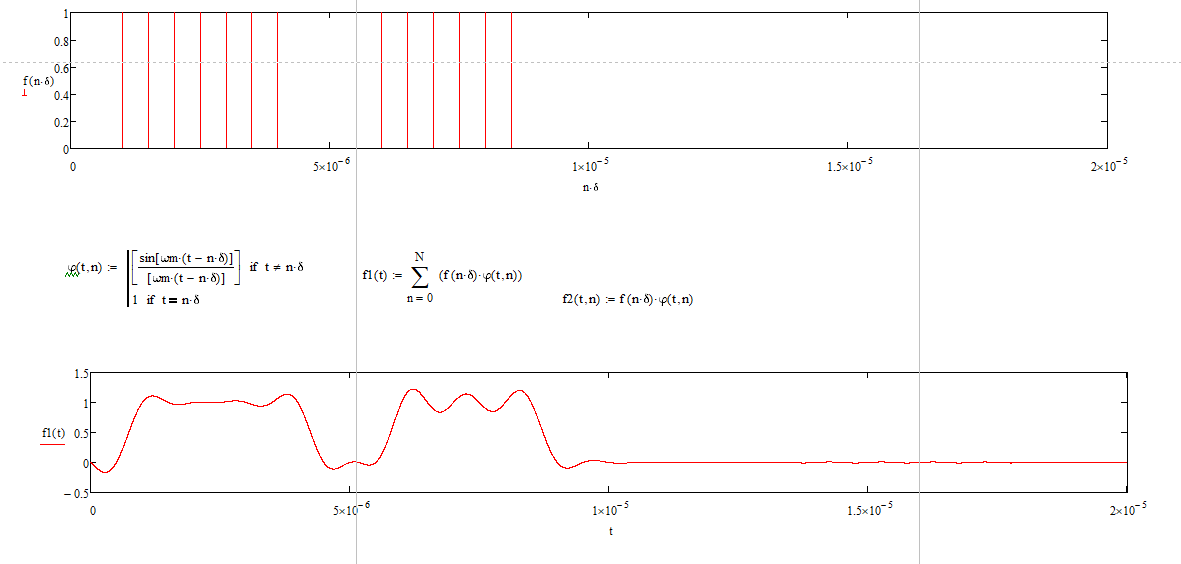
**2 Ход работы**

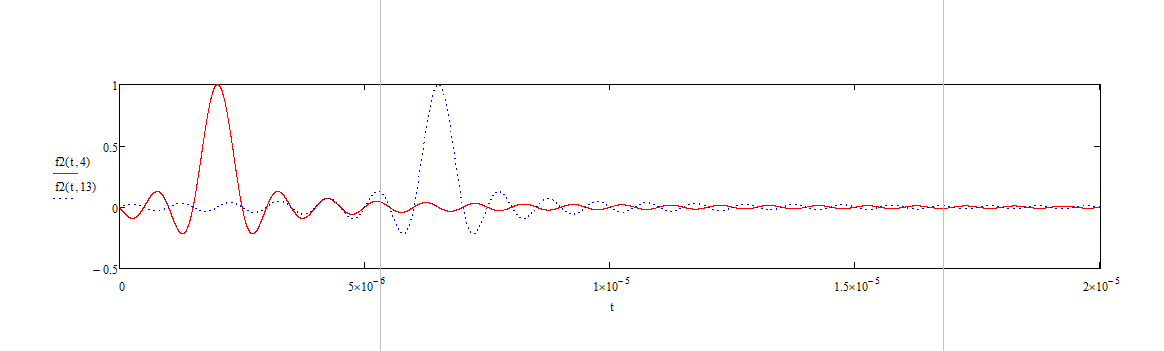
Исходные данные и ход работы представлены на снимках экрана.





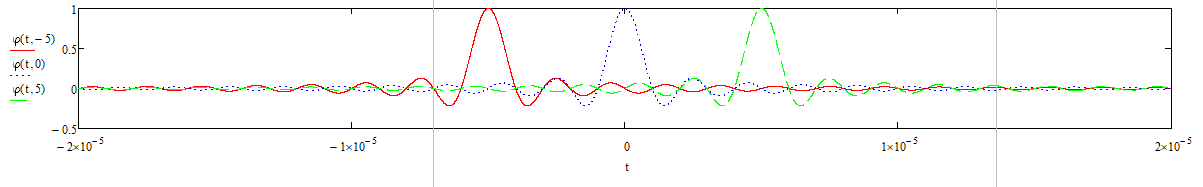




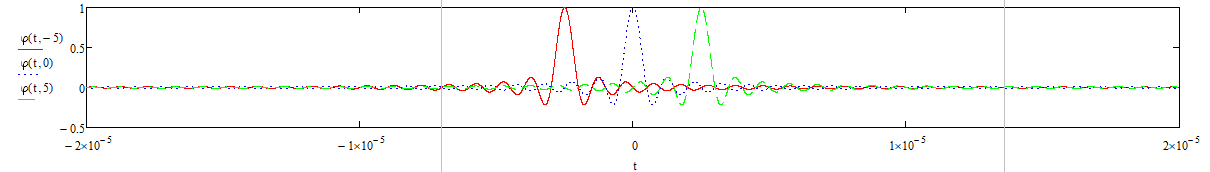


Для части А лабораторной работы:

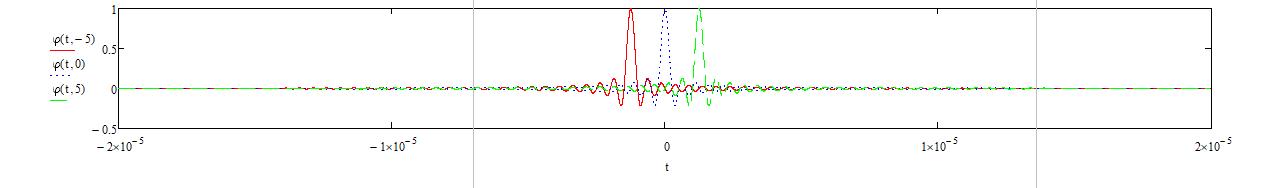
fm:\*2;



fm:\*4;

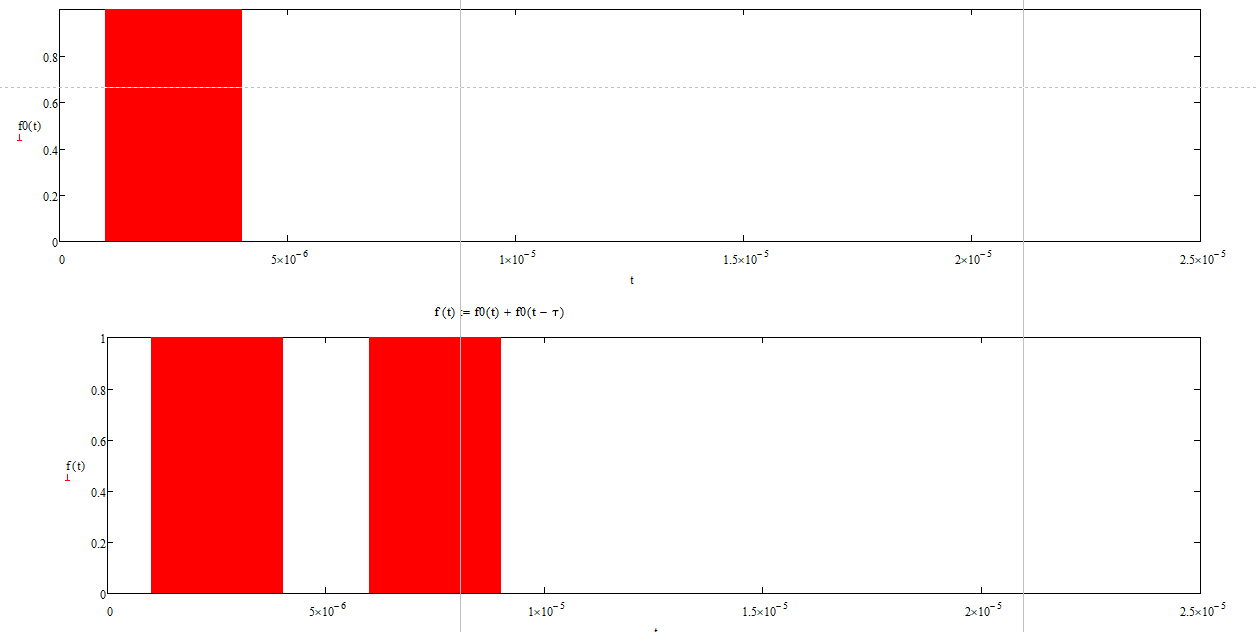


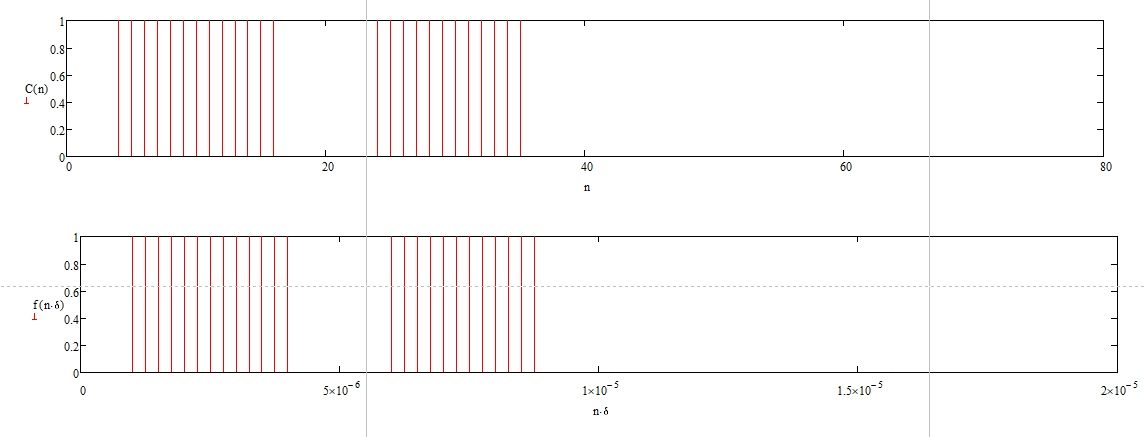
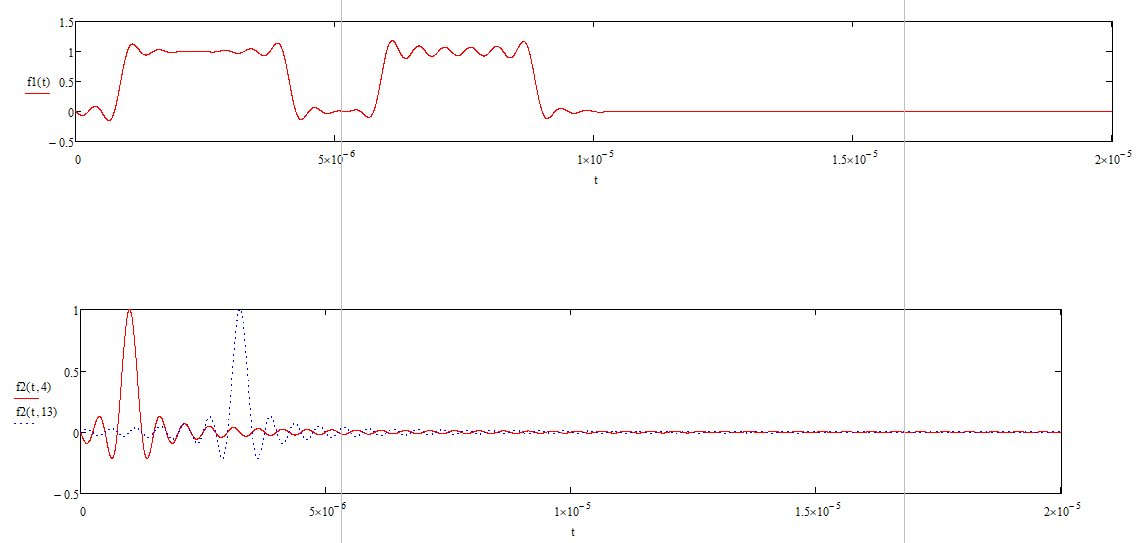
fm:\*8;



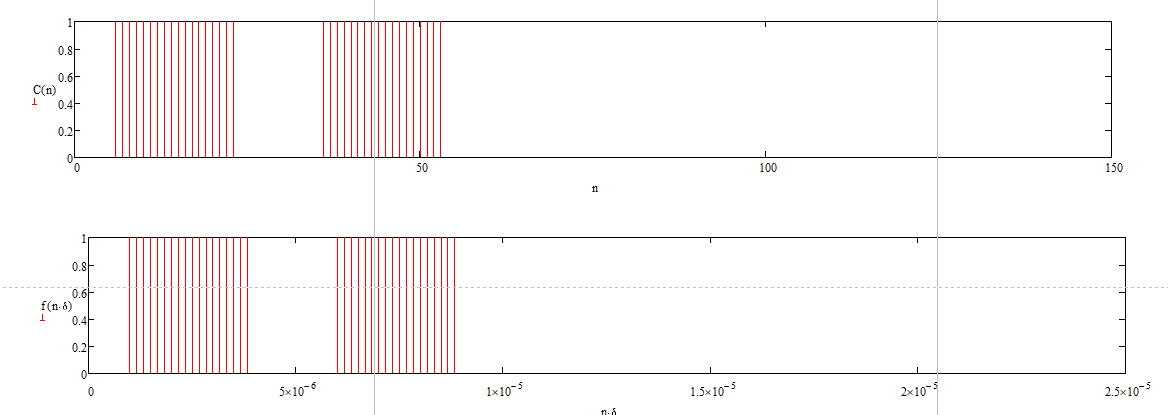
Для части Б лабораторной работы:

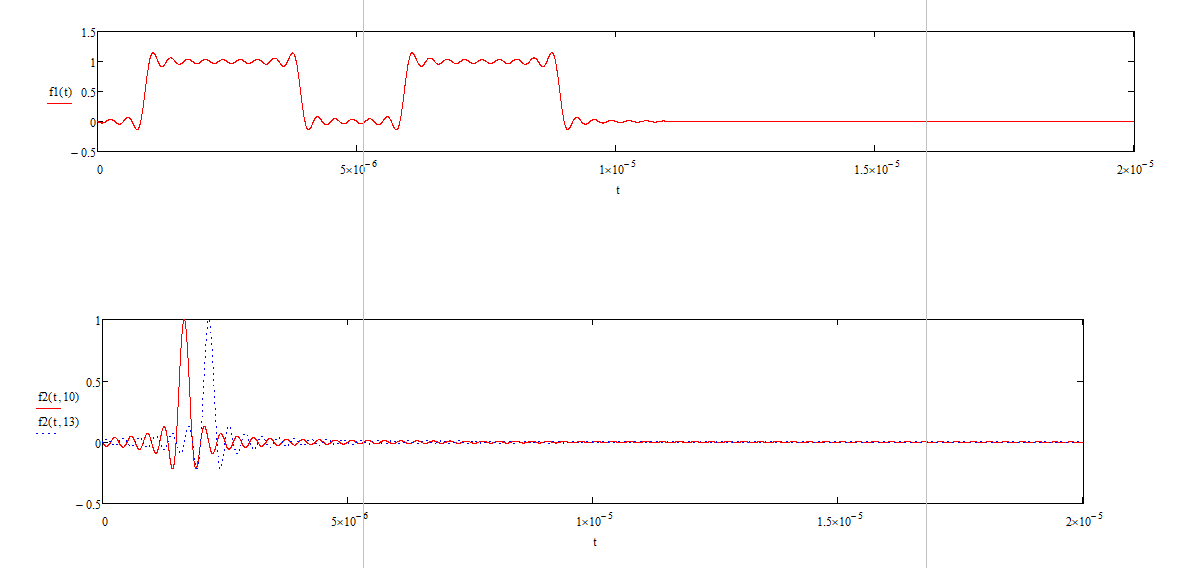
fm**:\*2;**



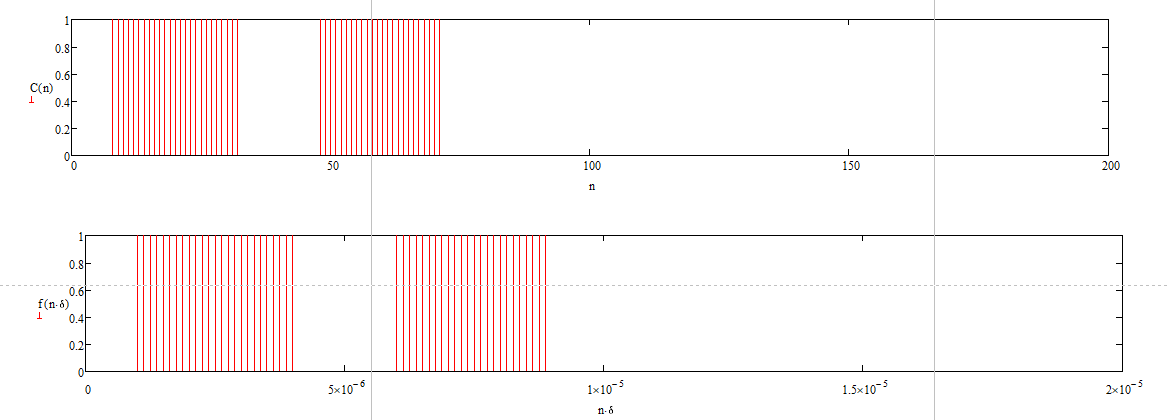
 

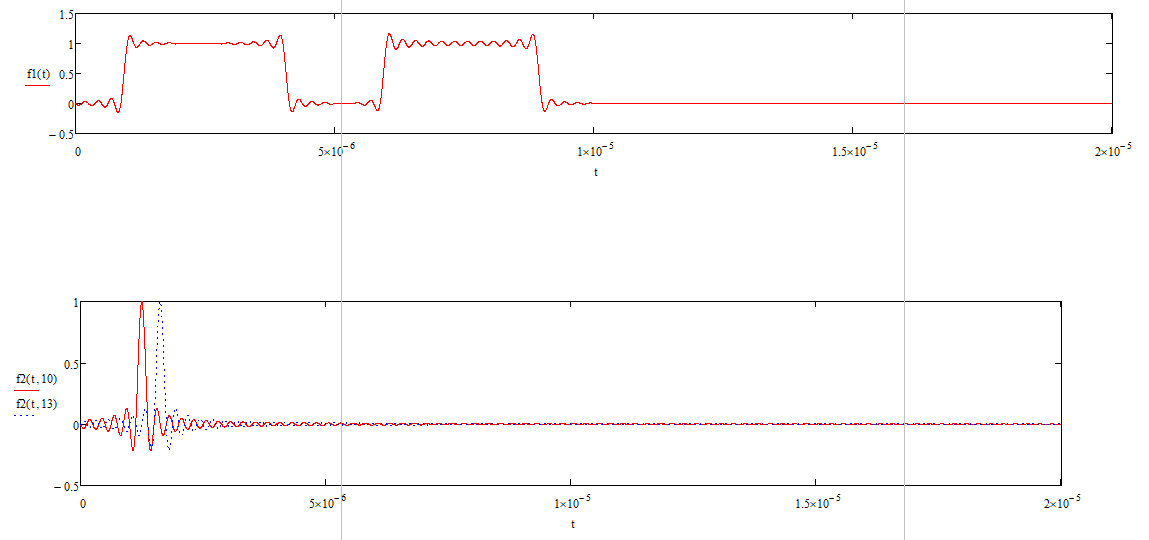
fm**:\*3;**

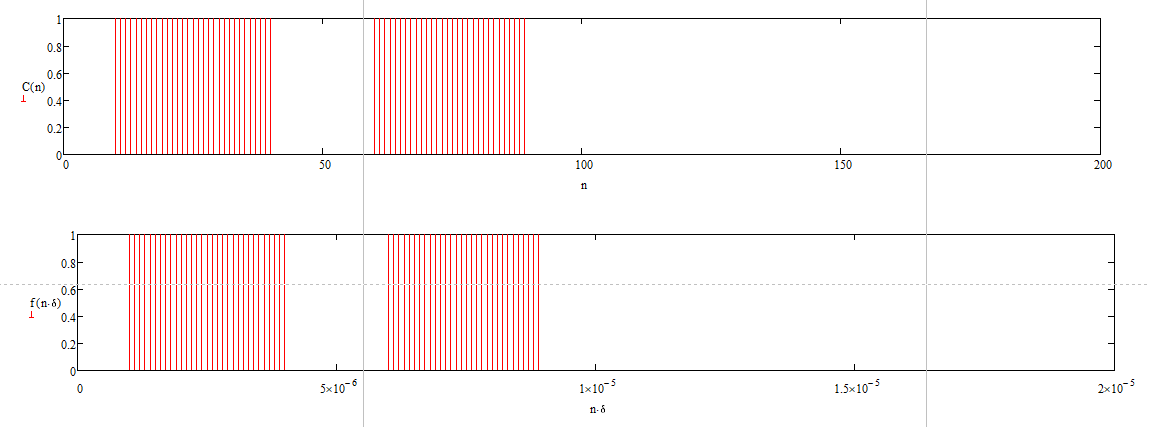
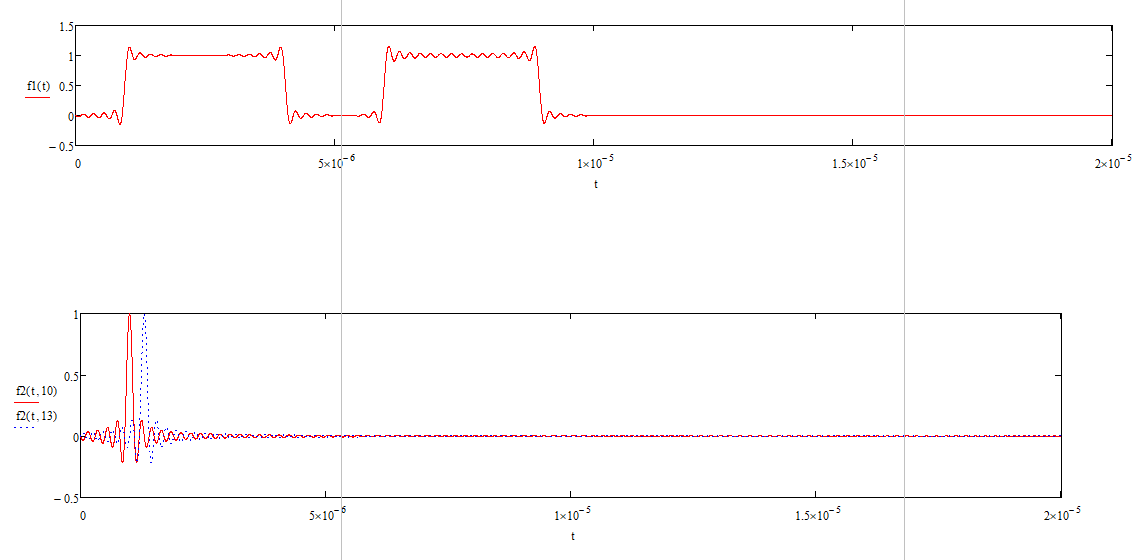


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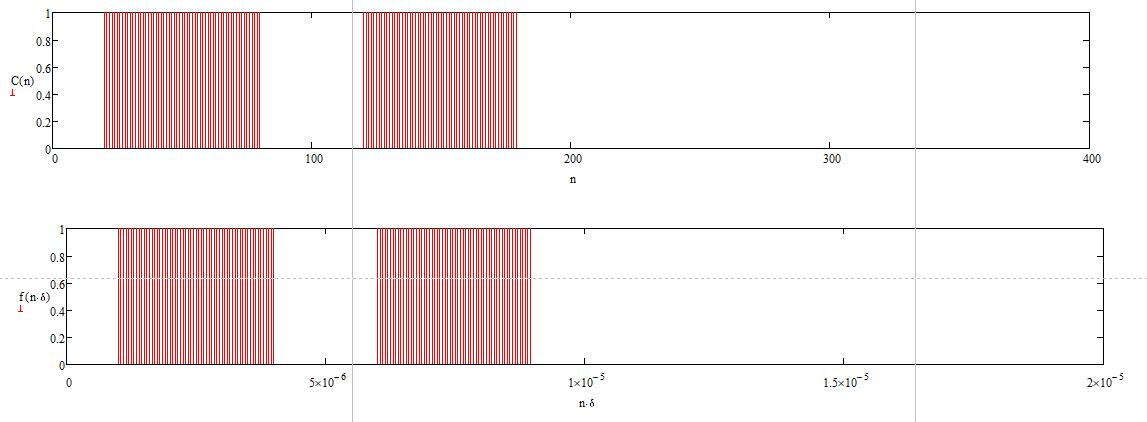
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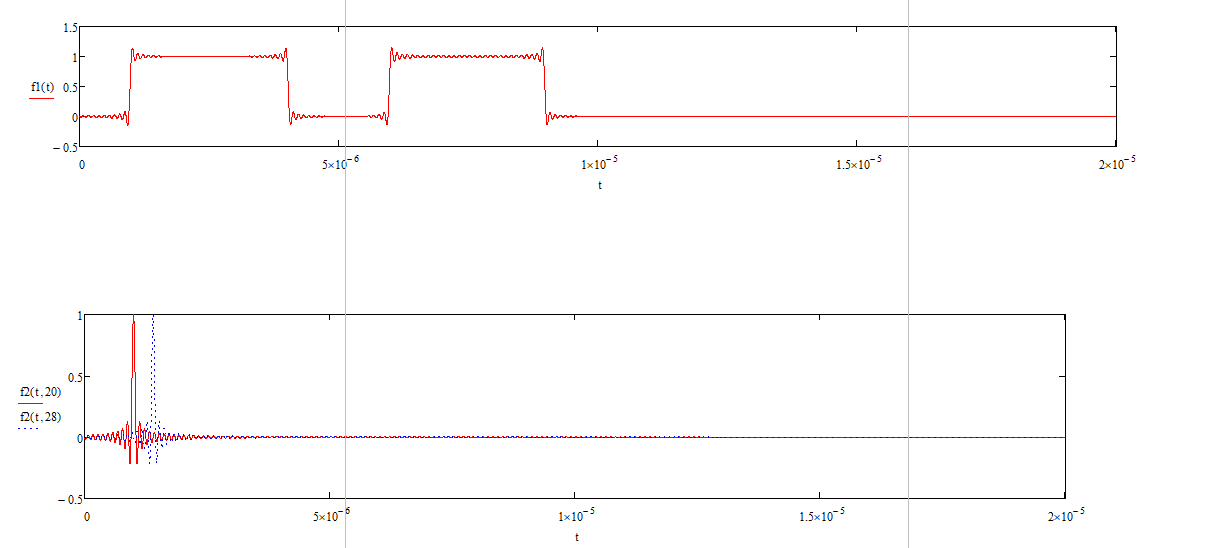




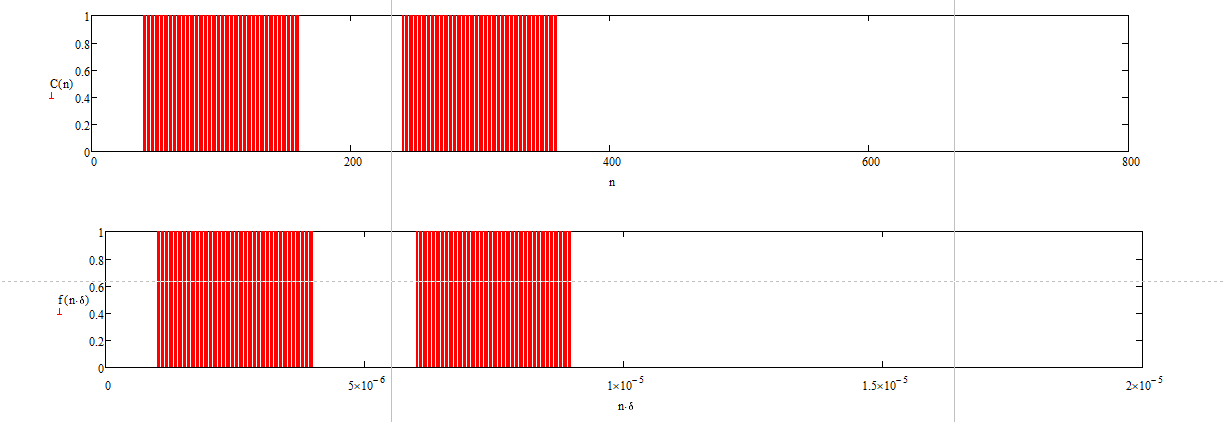
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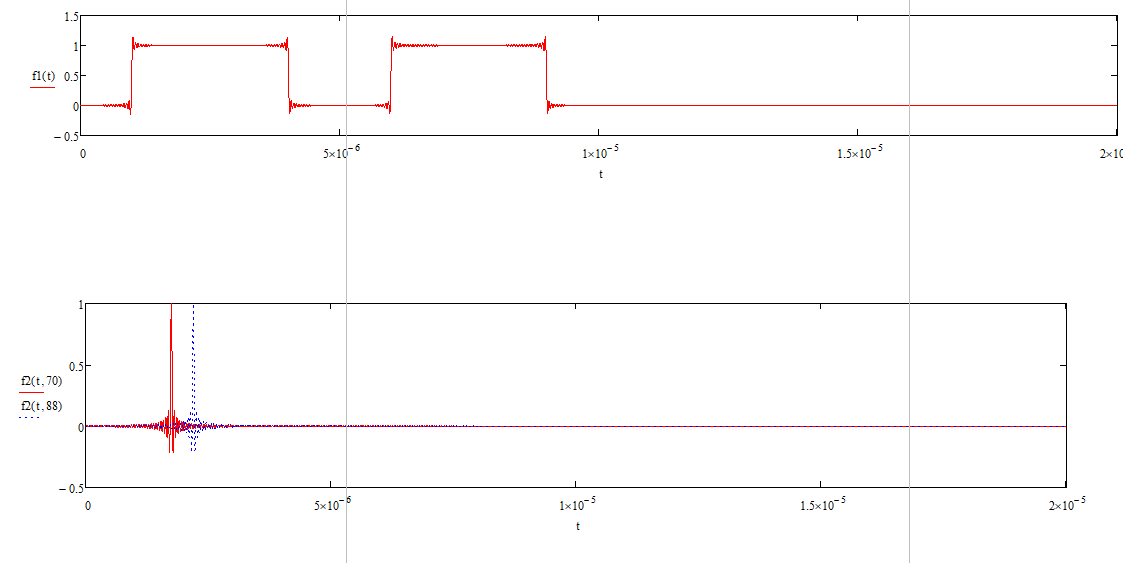
fm**:\*10;**



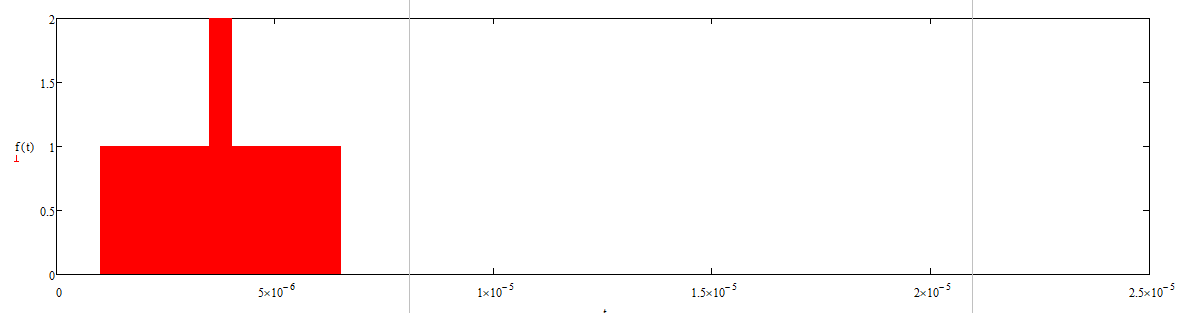
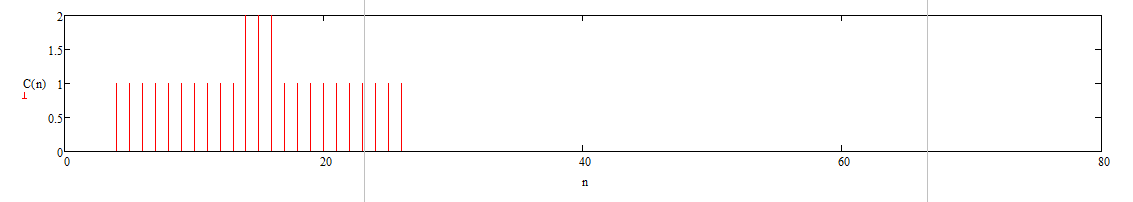
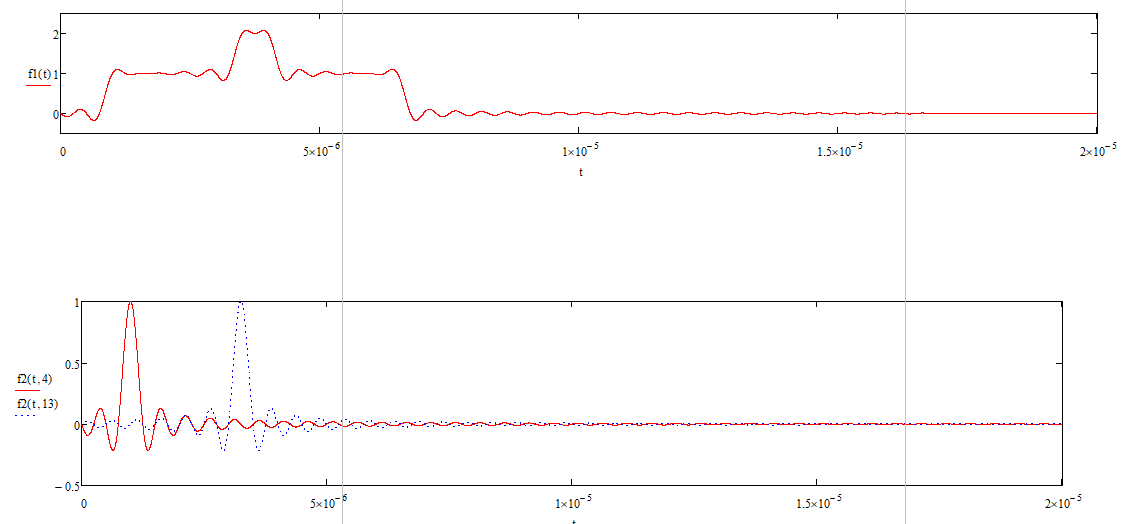


fm**:\*20;**

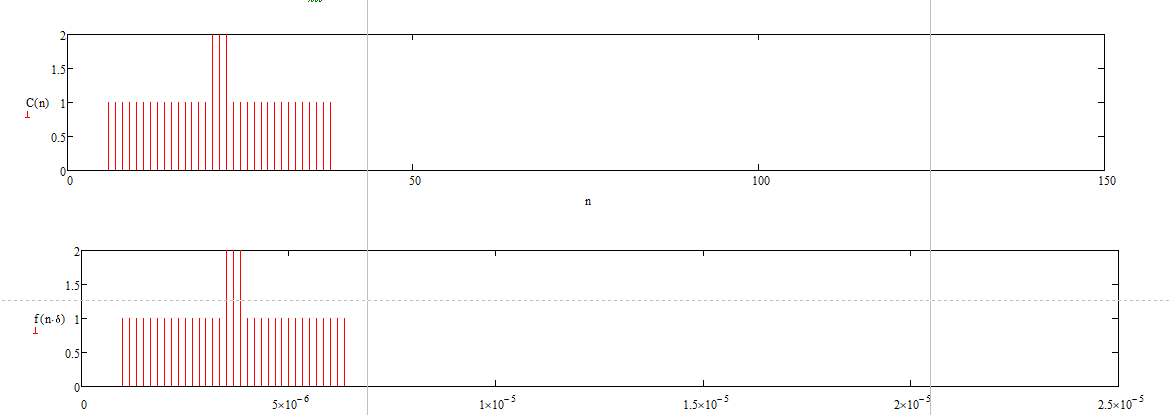


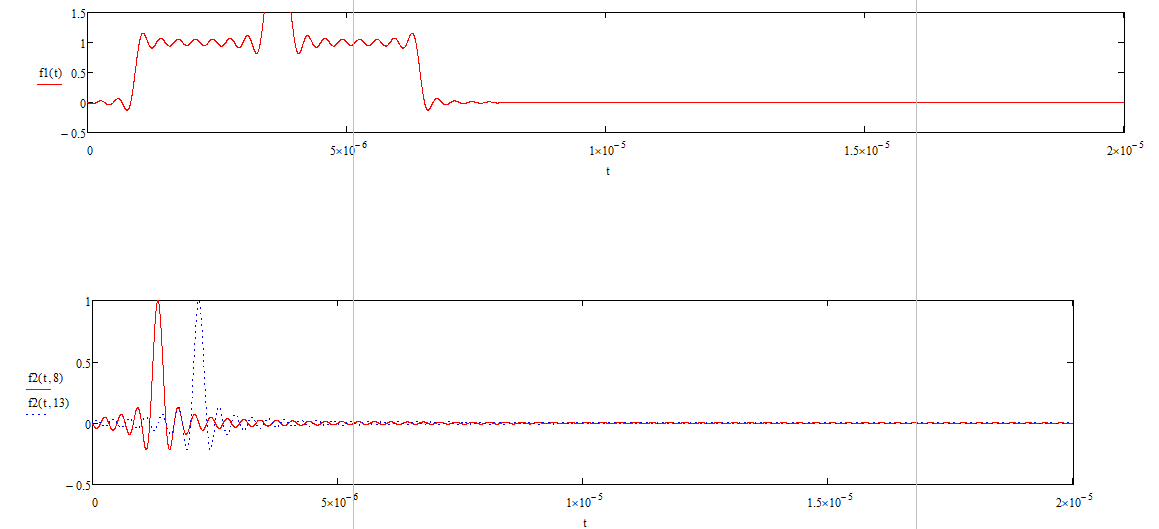


τ /2 и fm\*2;

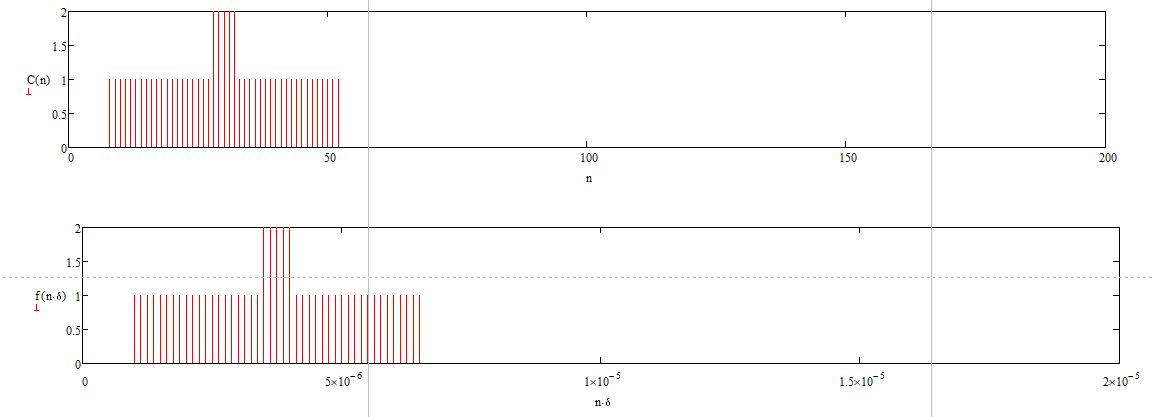
  

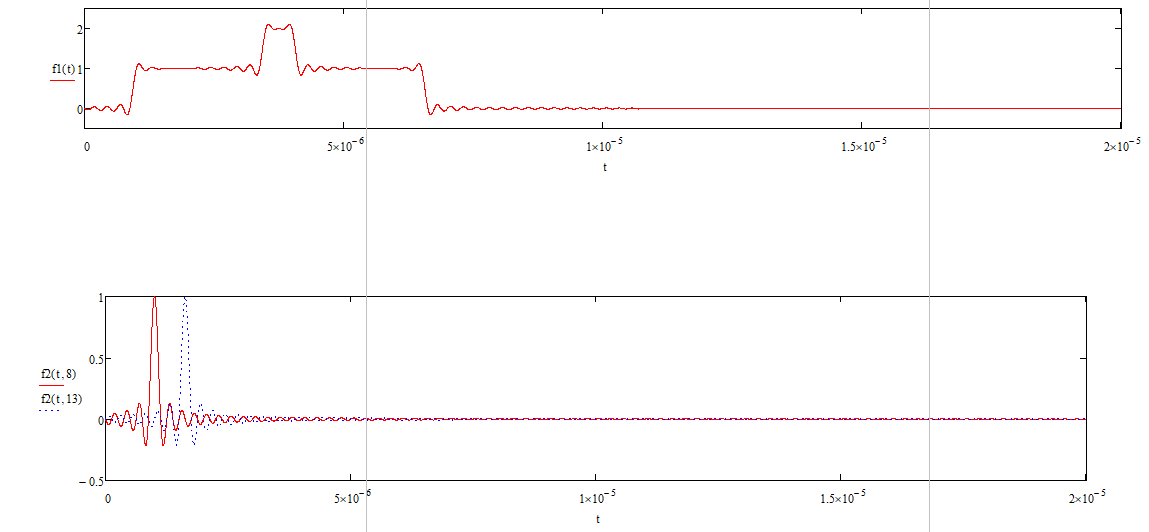
τ /2 и fm\*3;

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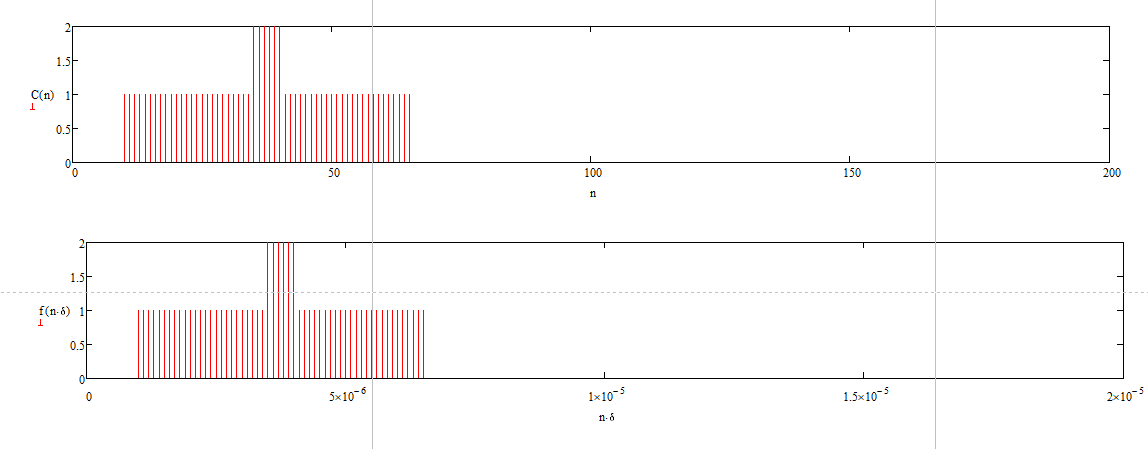
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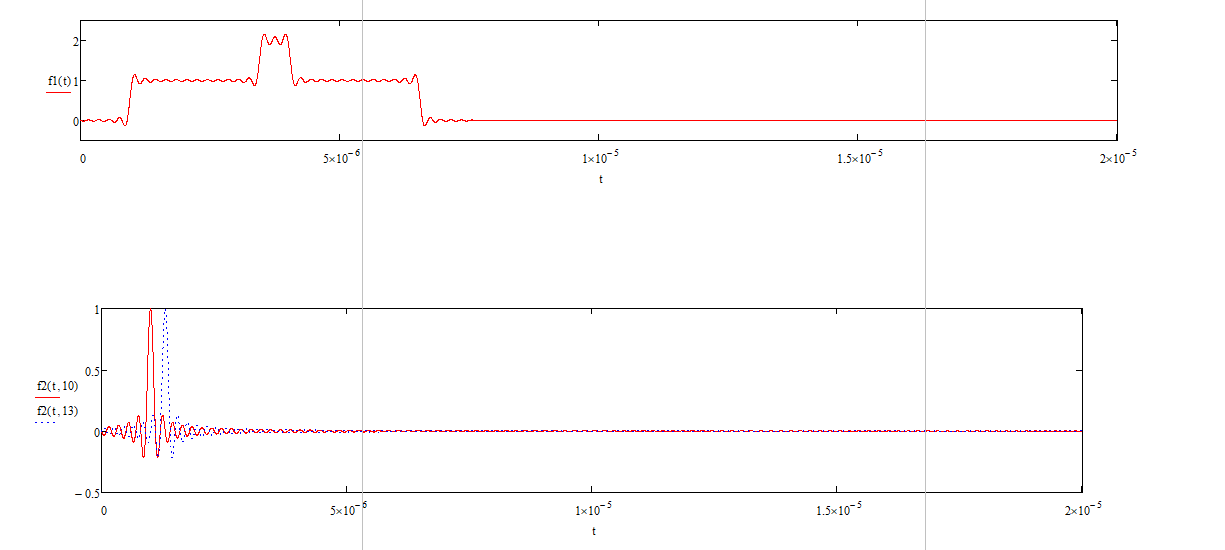
τ /2 и fm\*4;



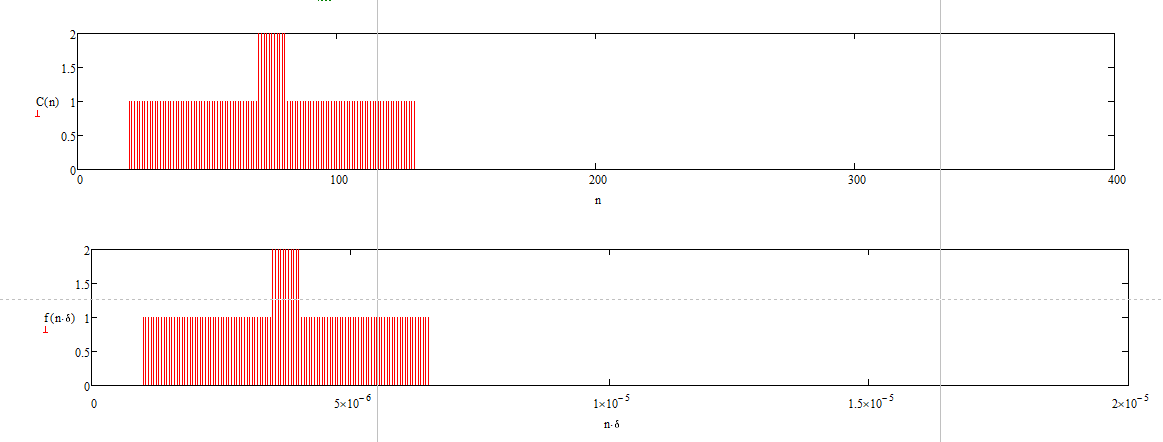
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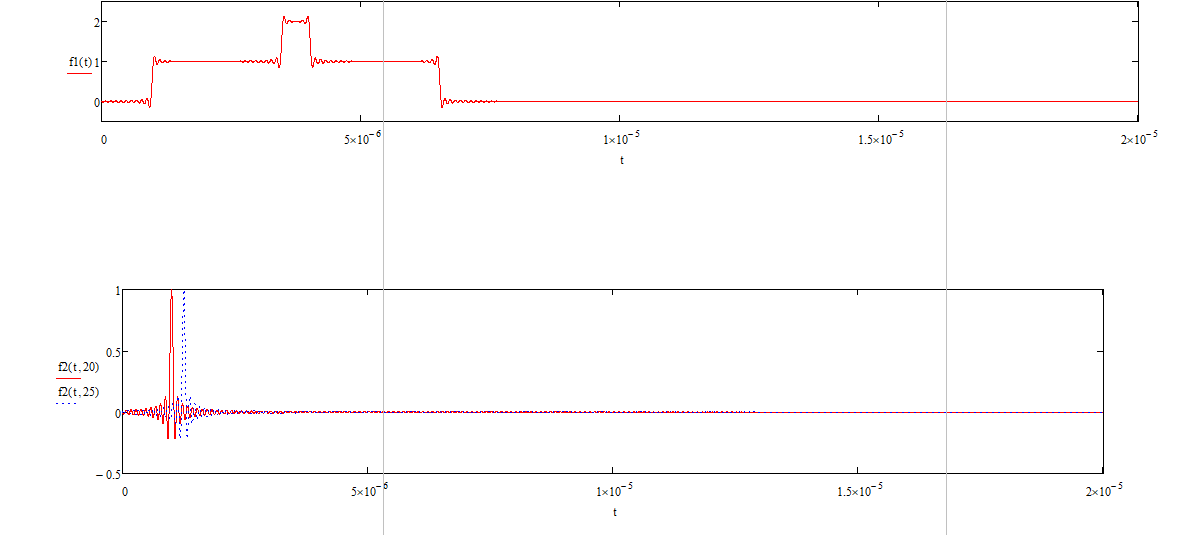
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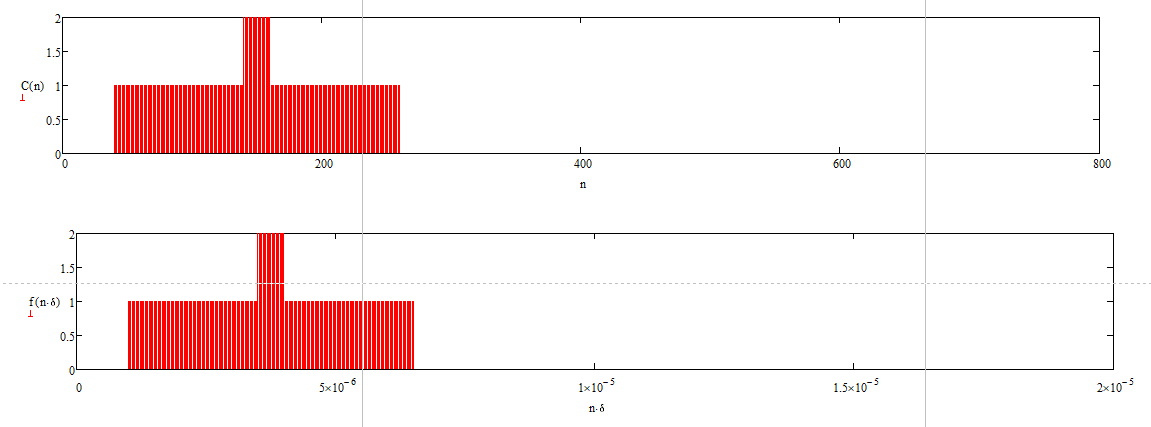
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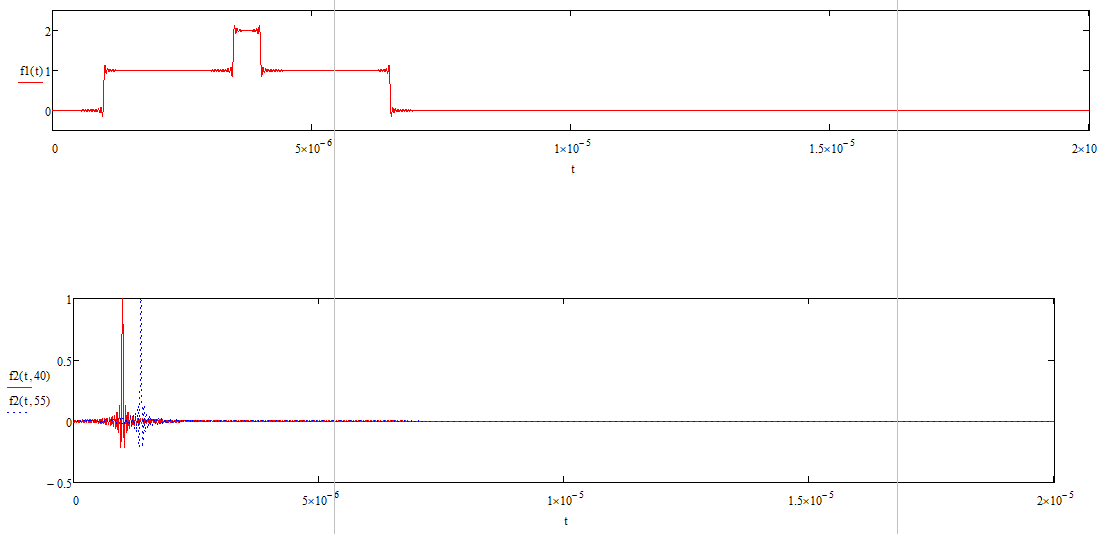
τ /2 и fm\*10;

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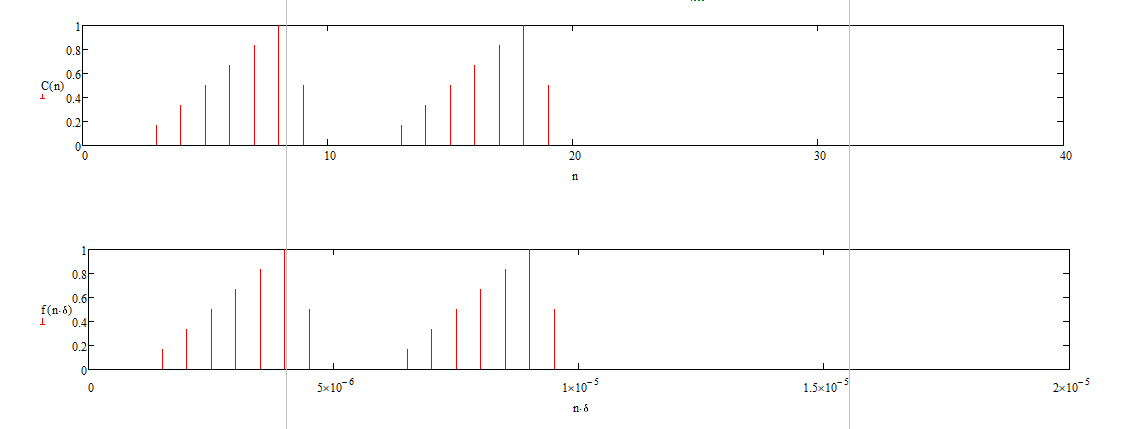
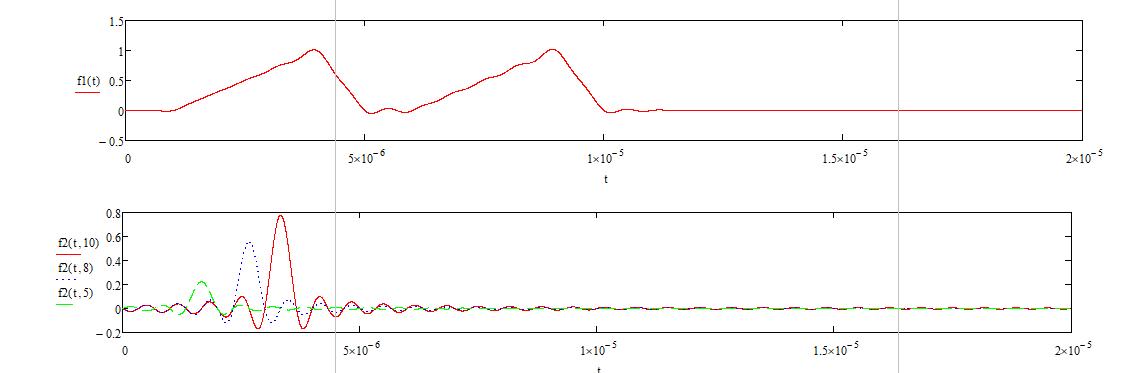
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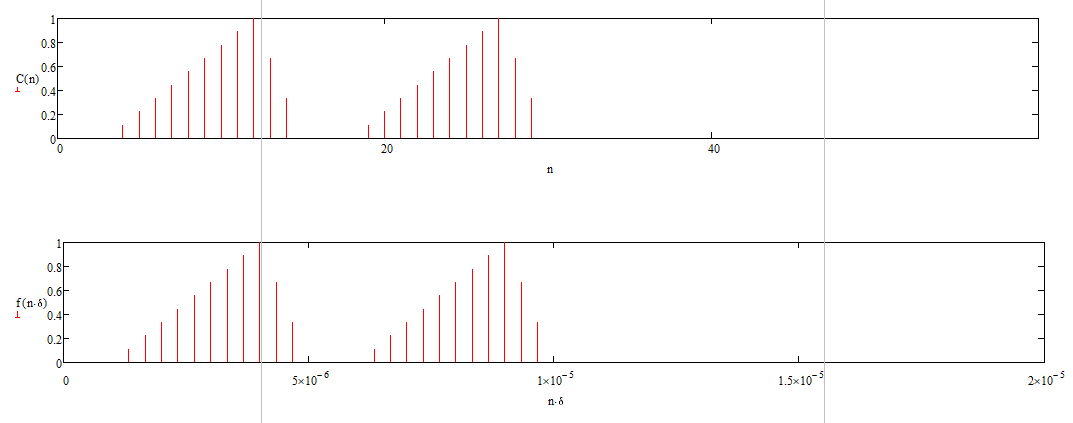
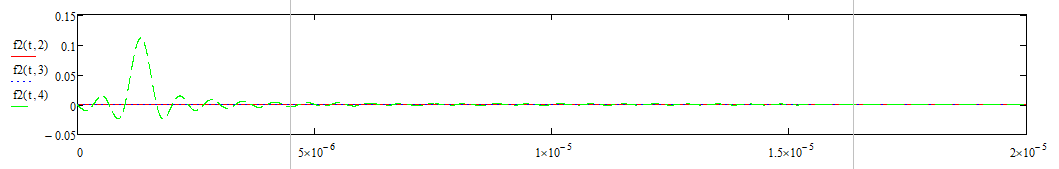




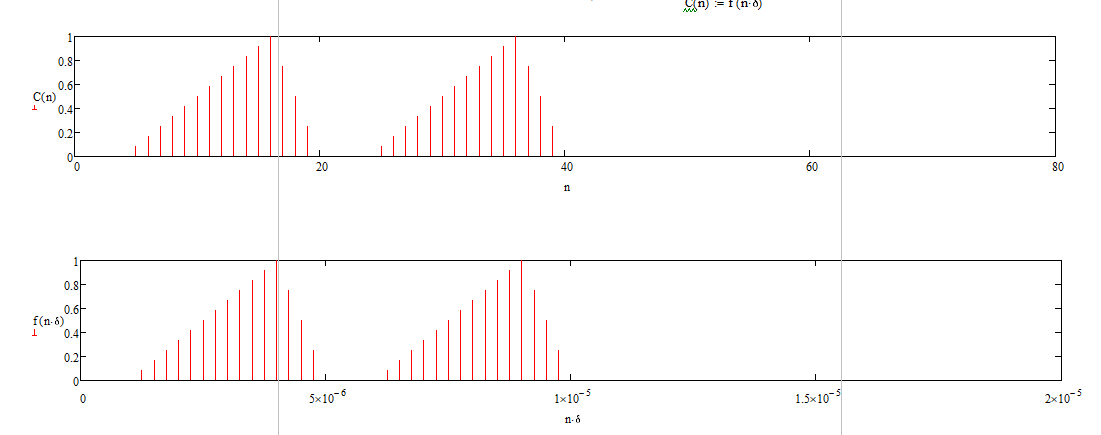
Часть Б для треугольных импульсов.

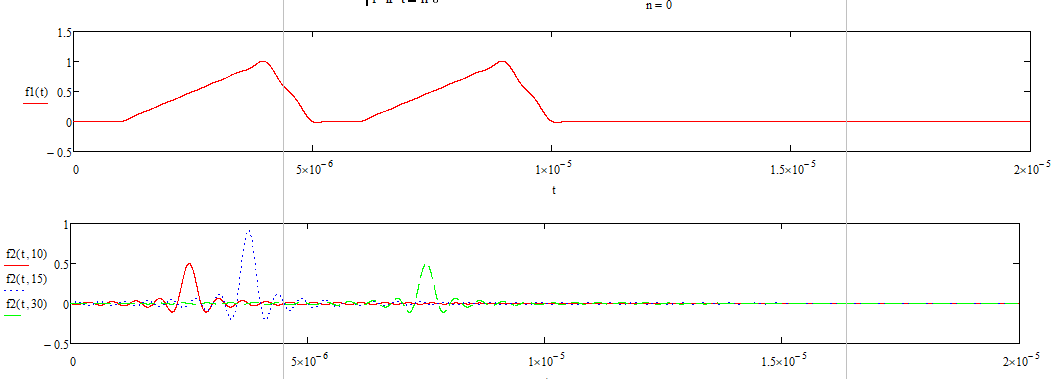
fm\*2;

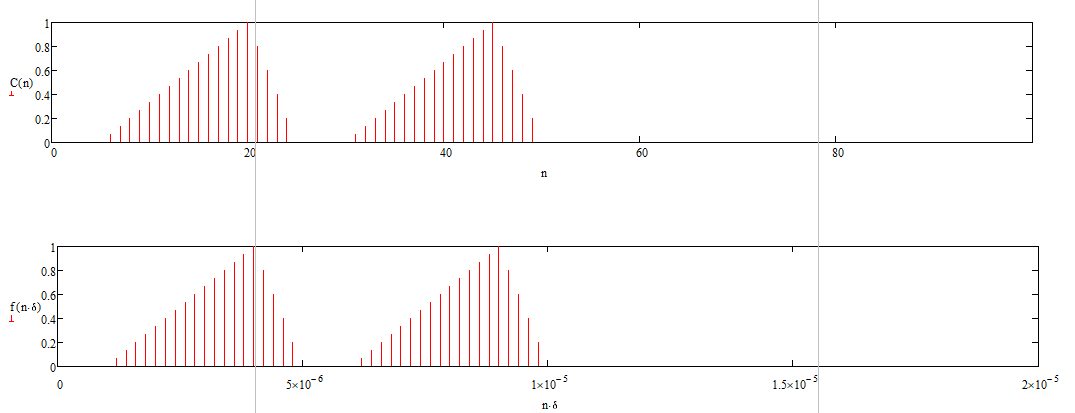
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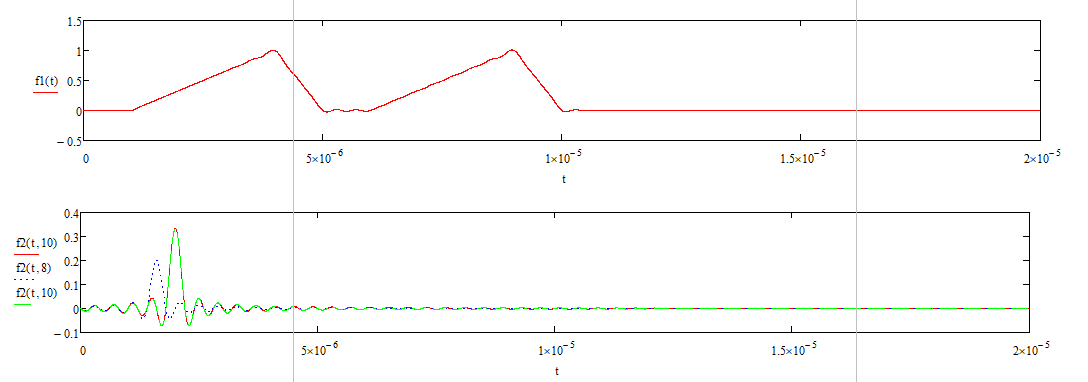
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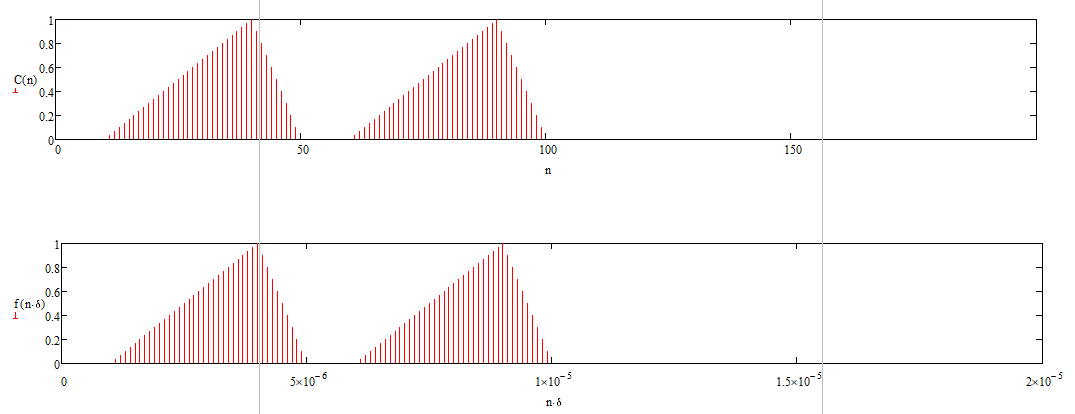


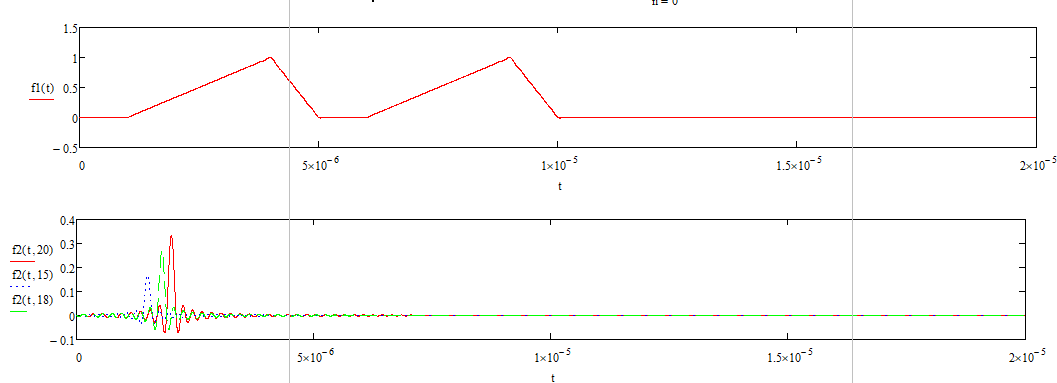
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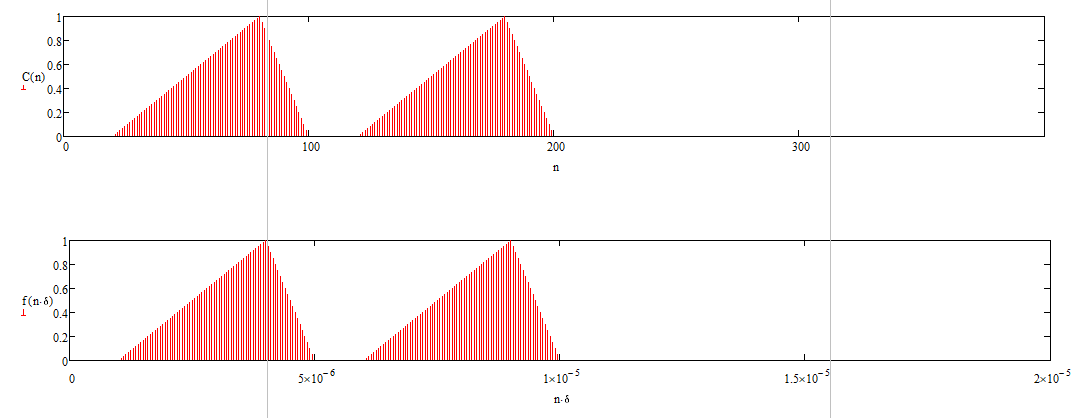
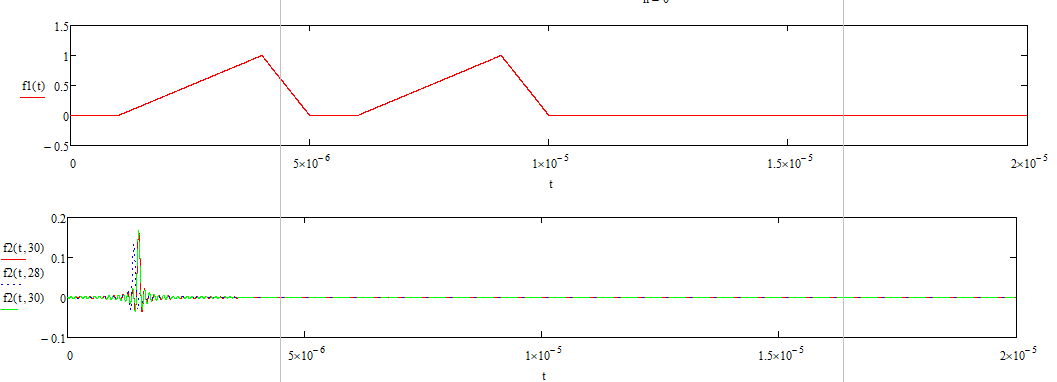


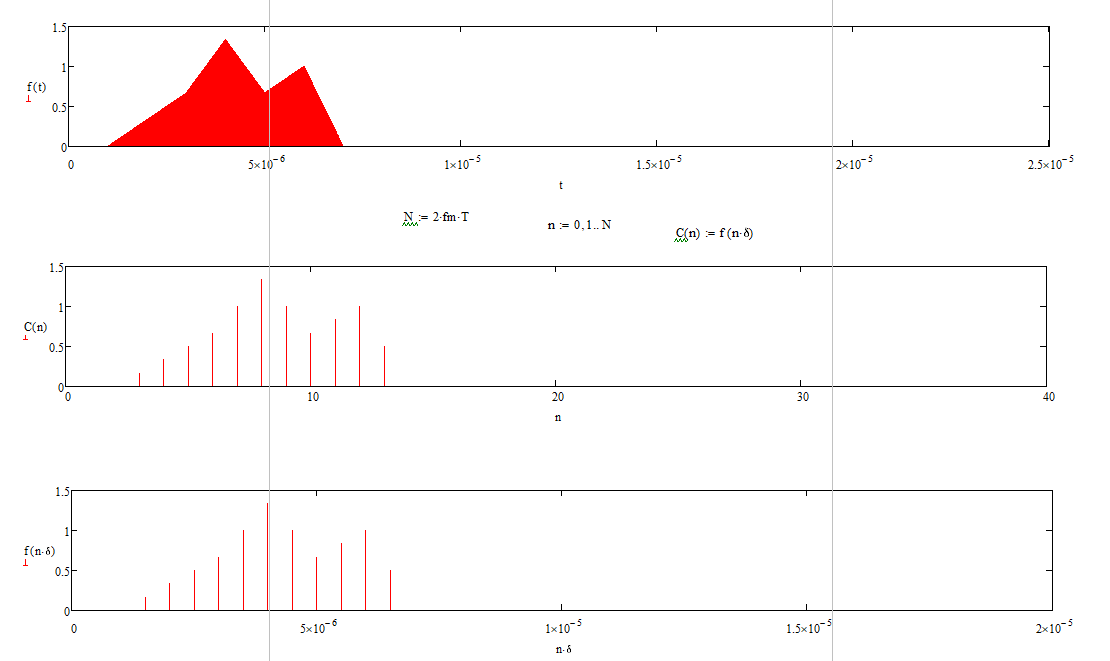
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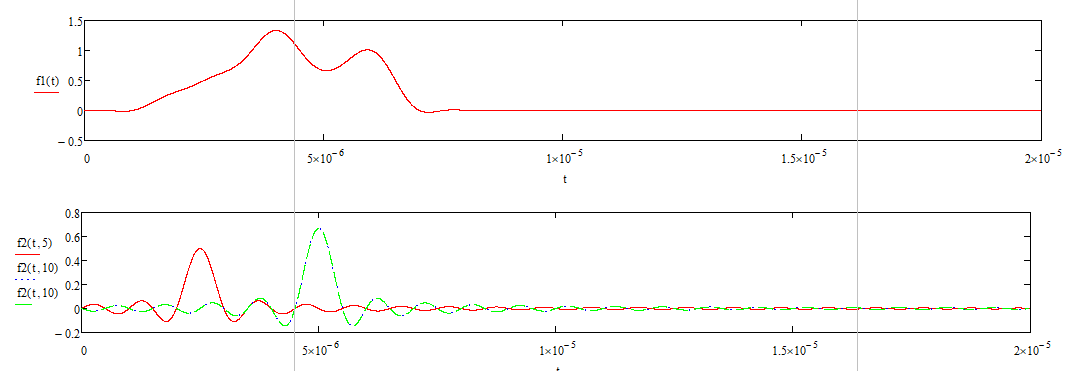




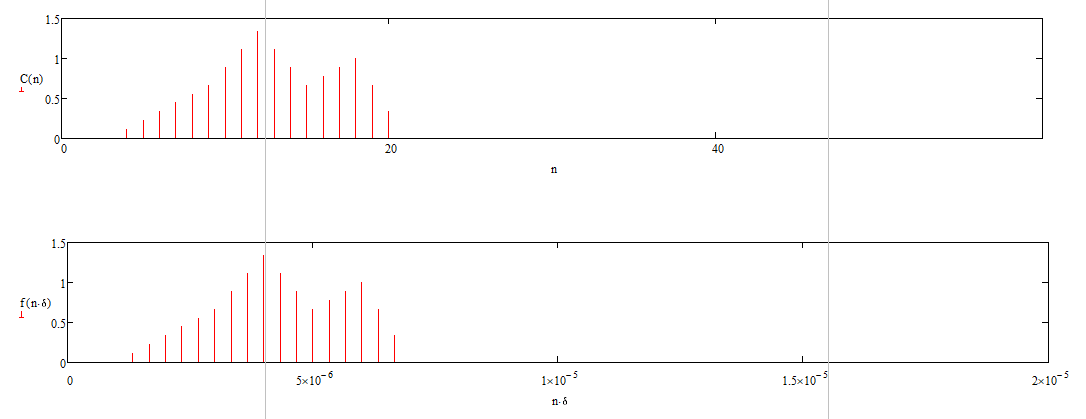
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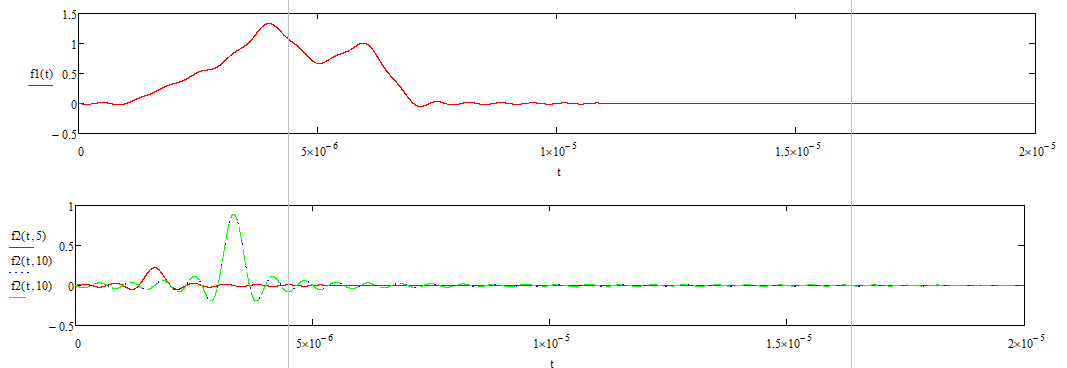
 τ /2 и fm\*2;



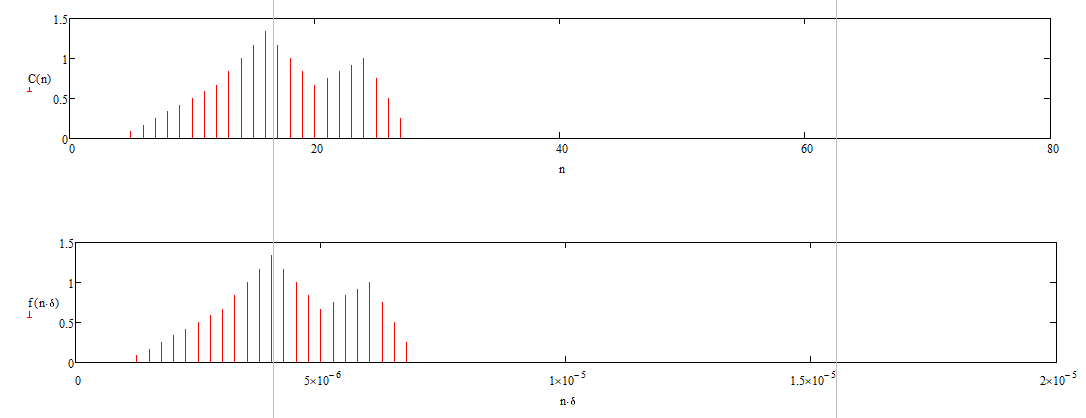
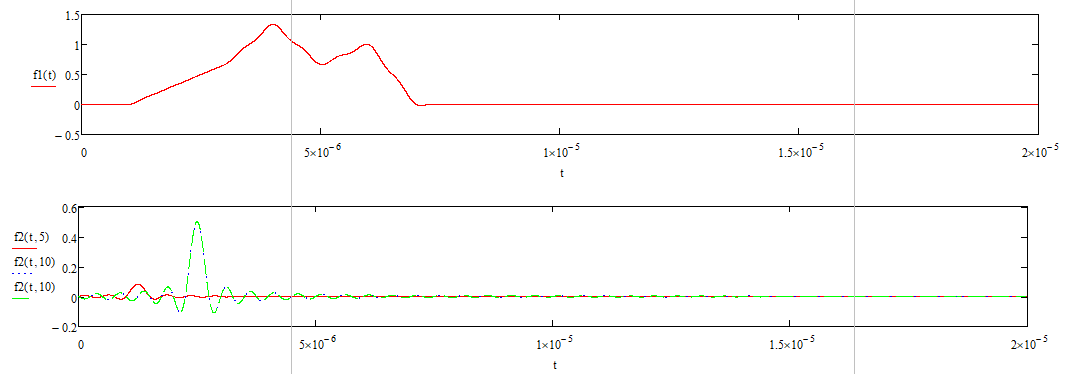


τ /2 и fm\*3;

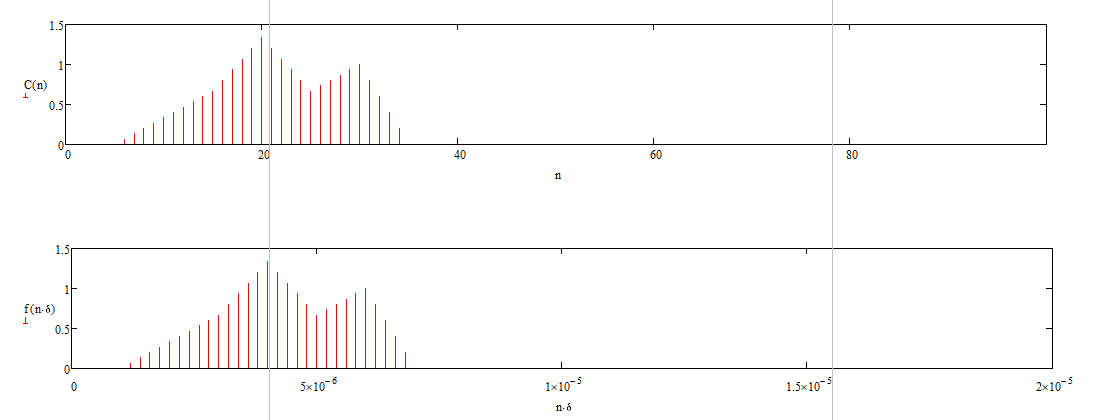


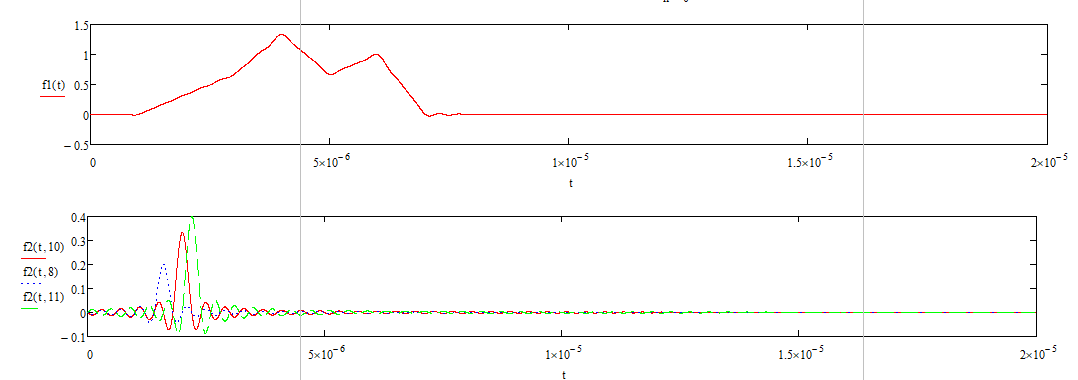


τ /2 и fm\*4;

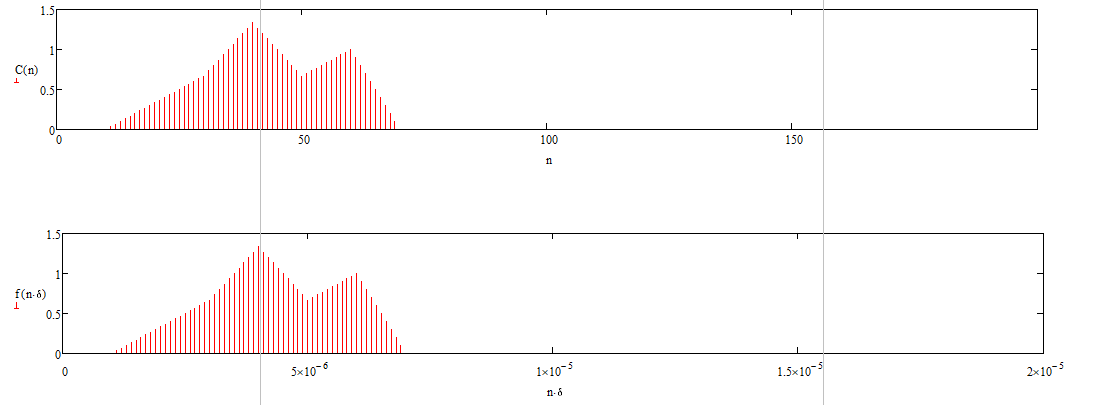
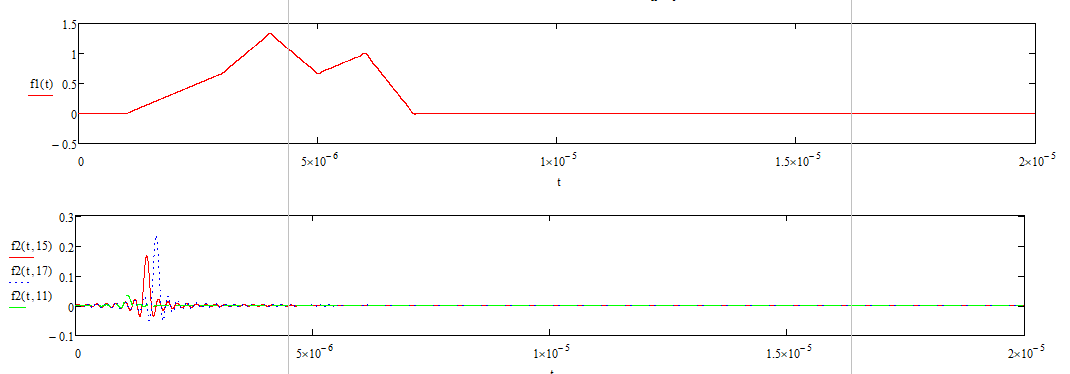
 

τ /2 и fm\*5;

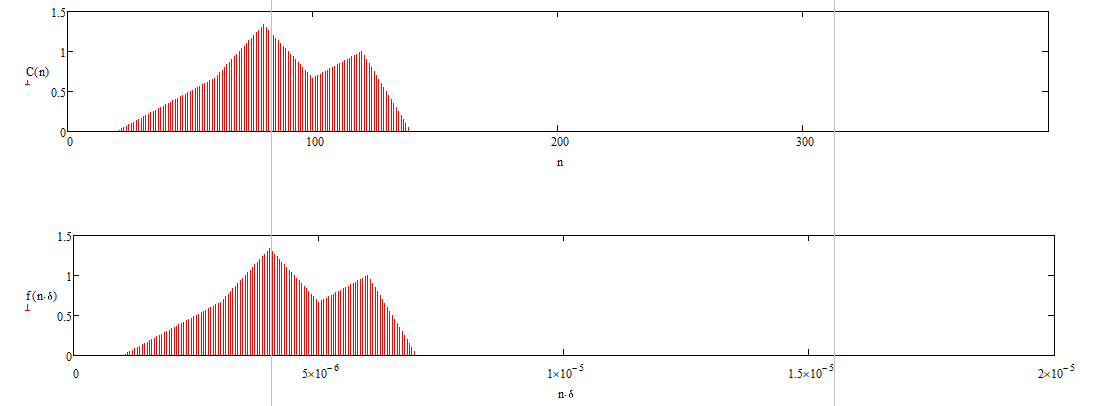
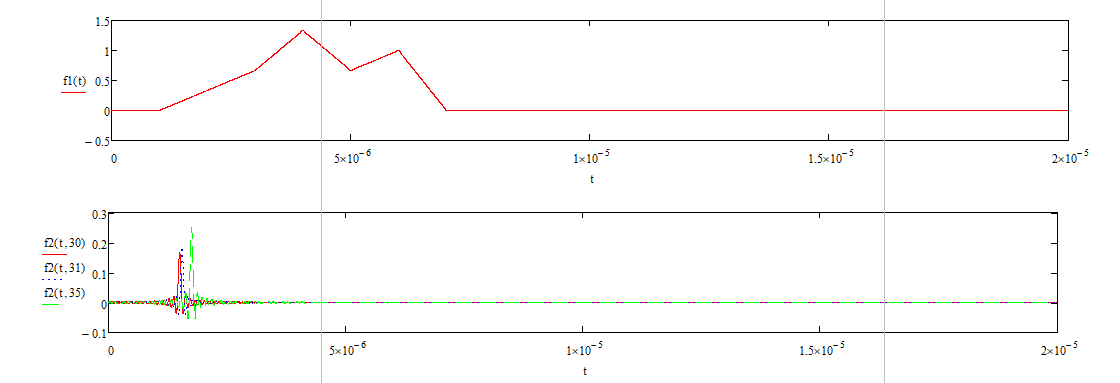


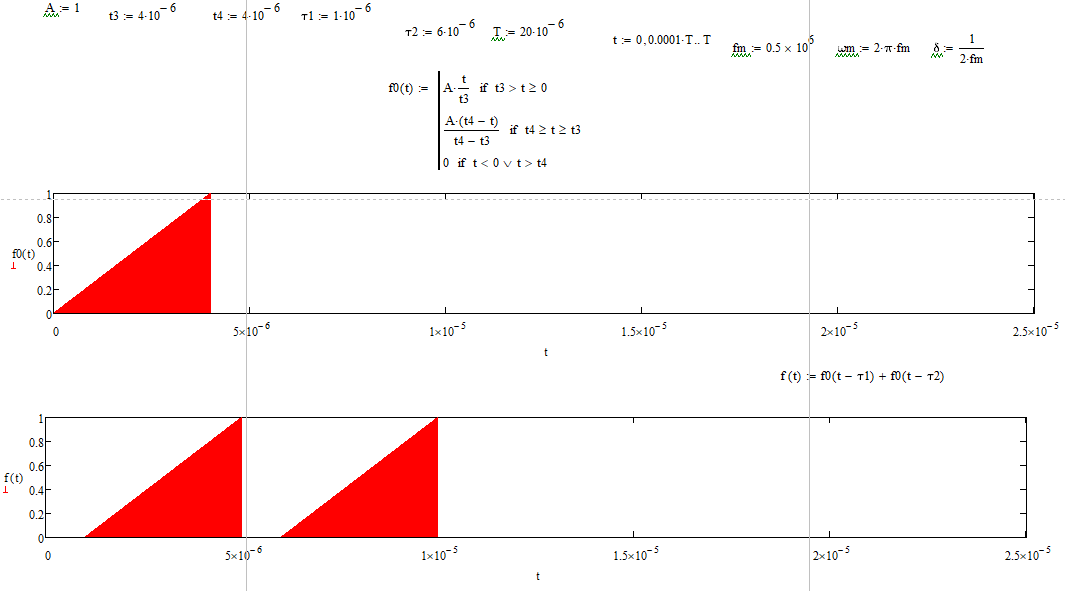
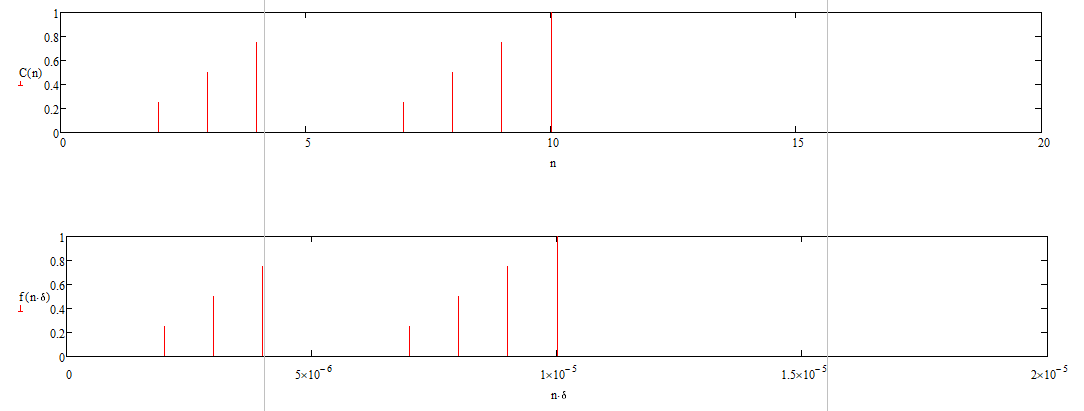
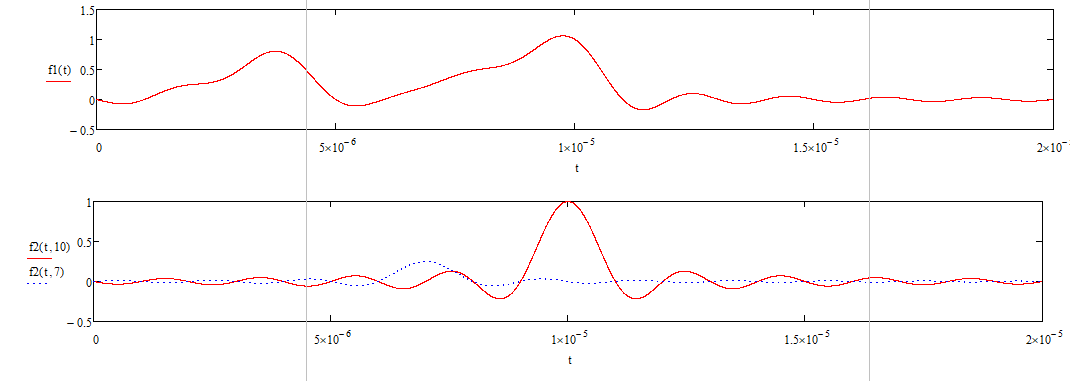


τ /2 и fm\*10;

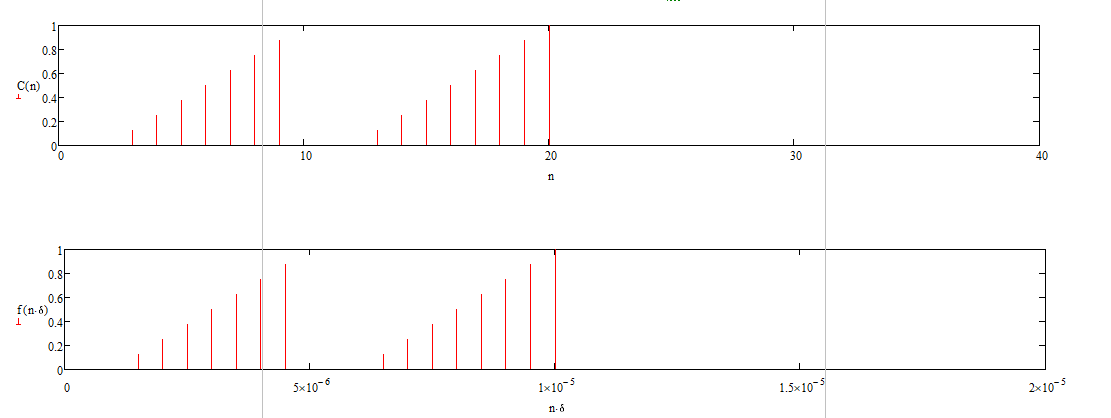
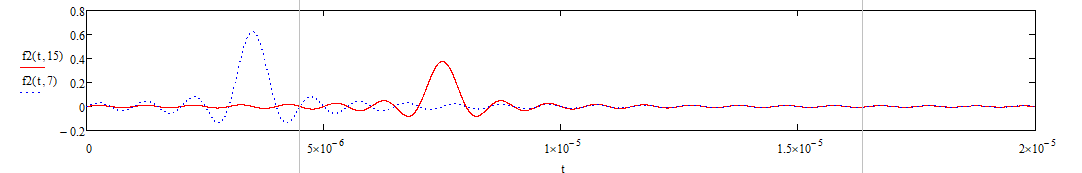
 

τ /2 и fm\*20;

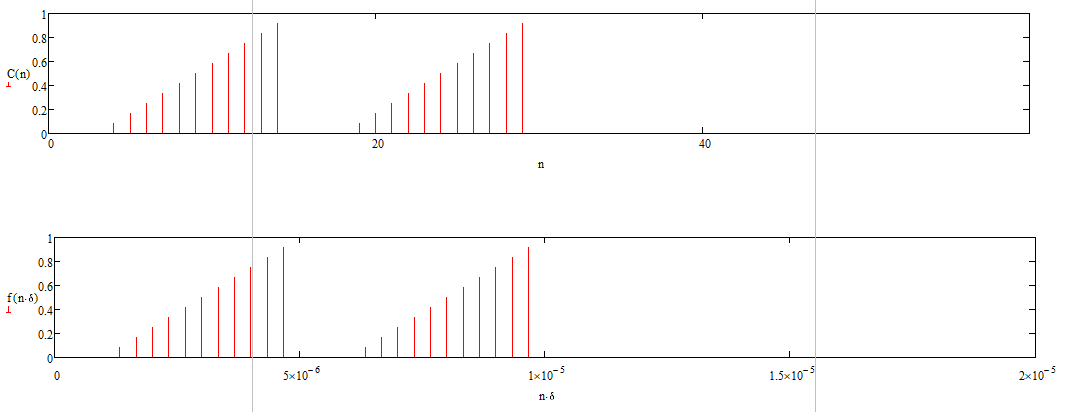
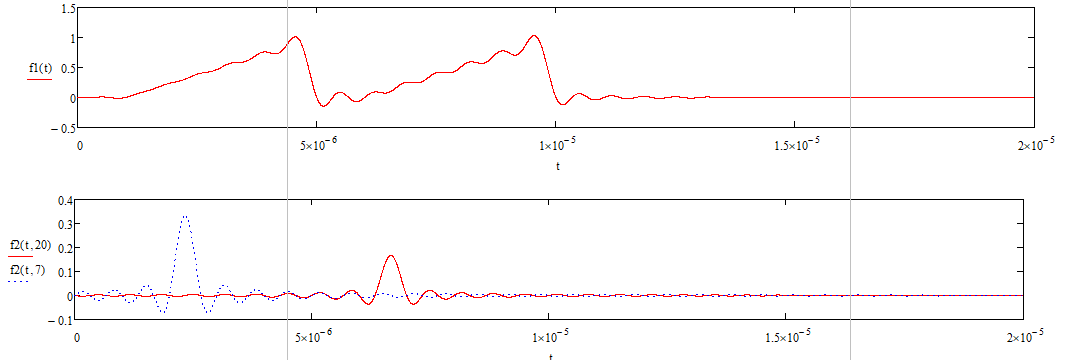
 

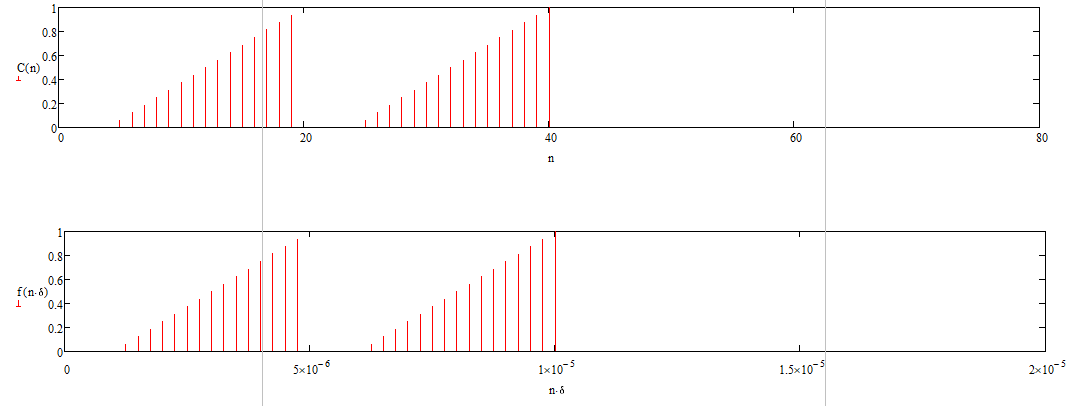
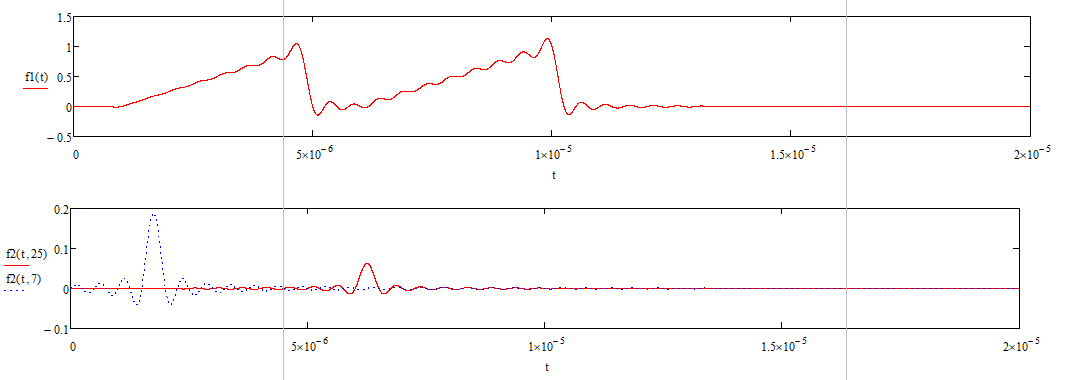
fm\*2;

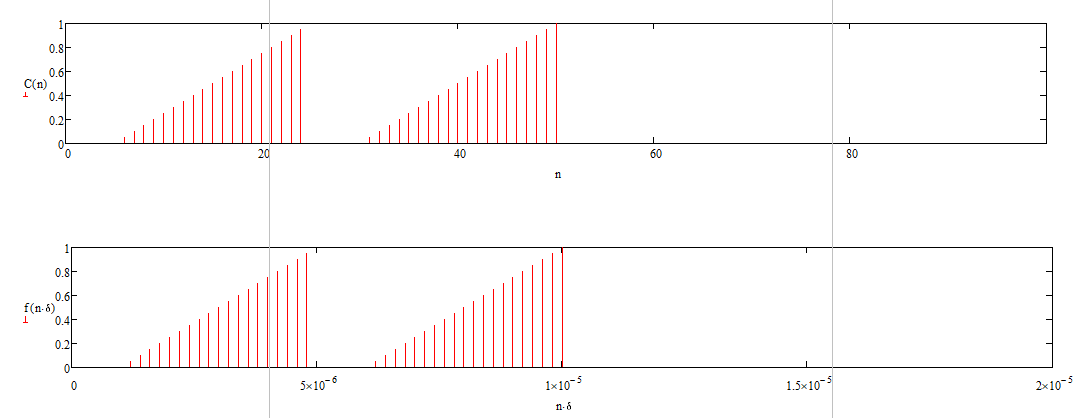
 

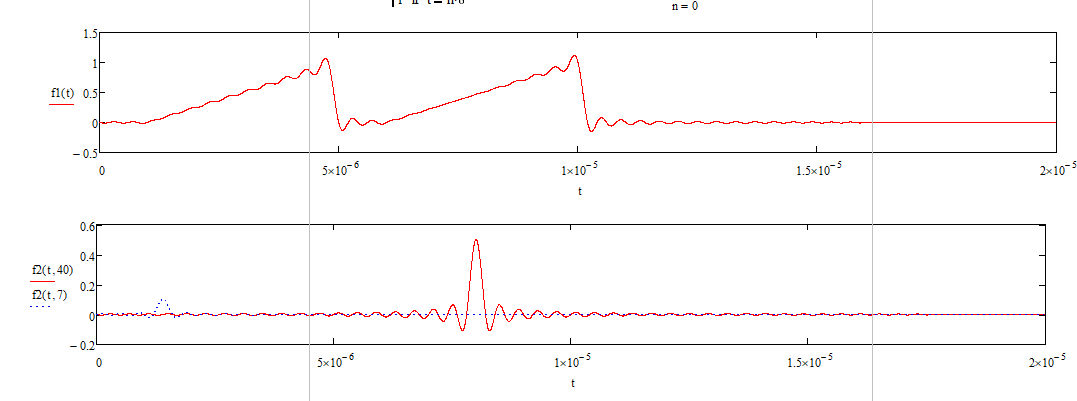
fm\*3;

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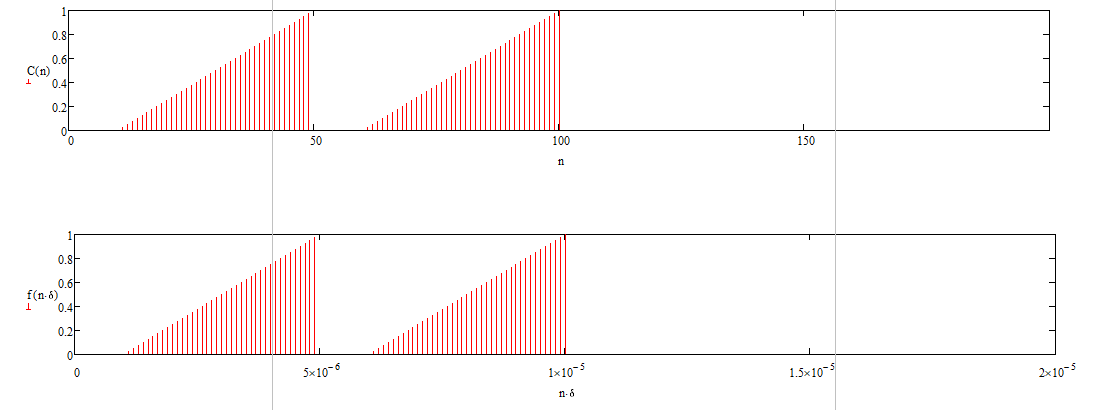
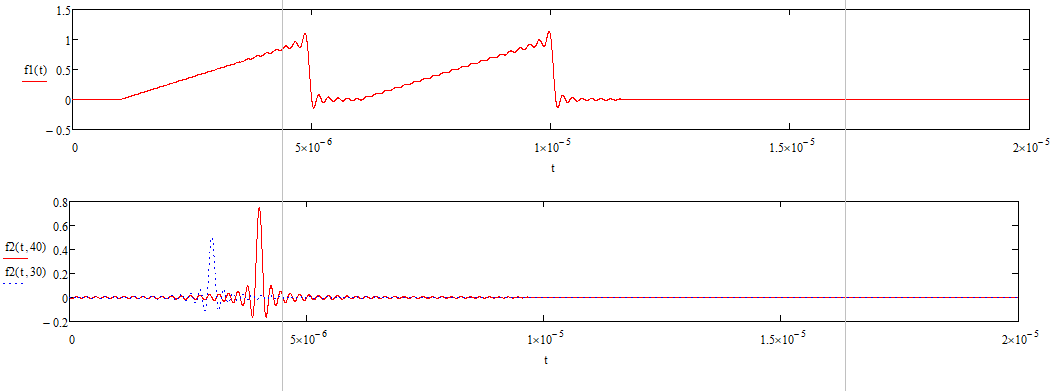
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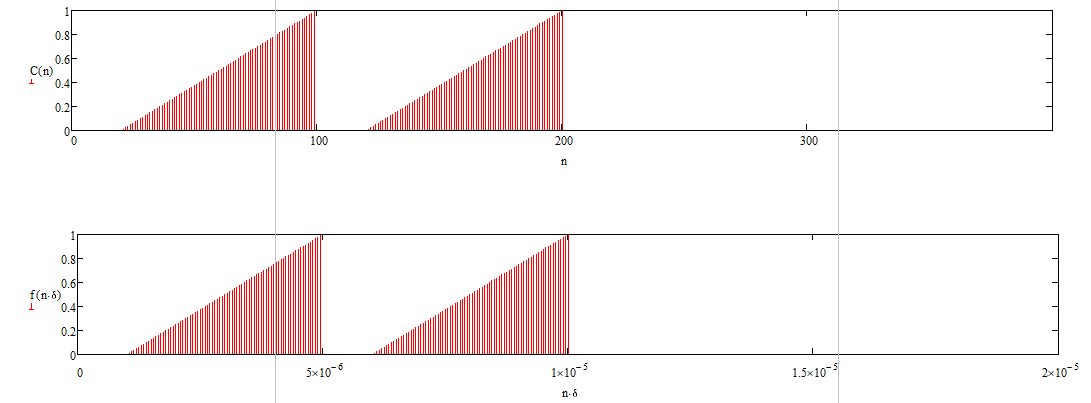
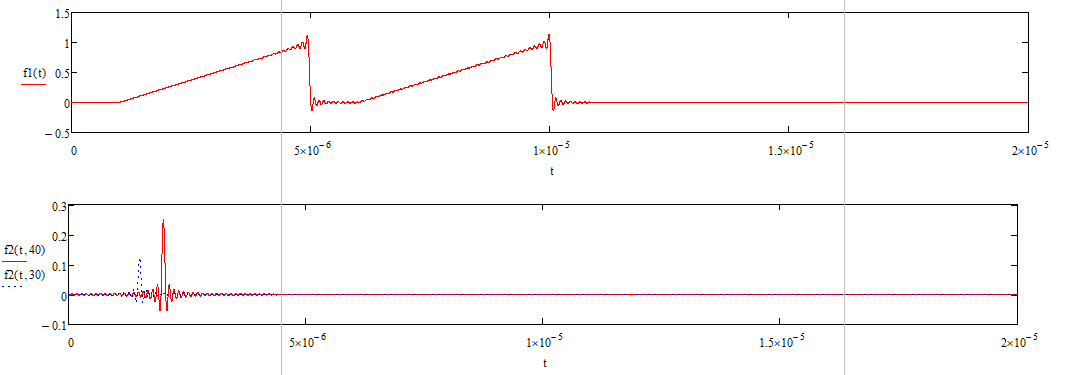
fm\*5; 



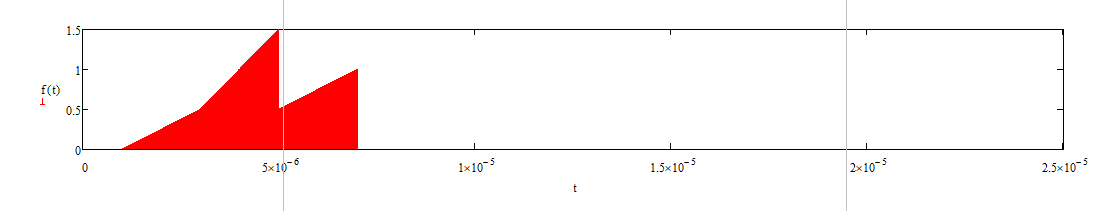
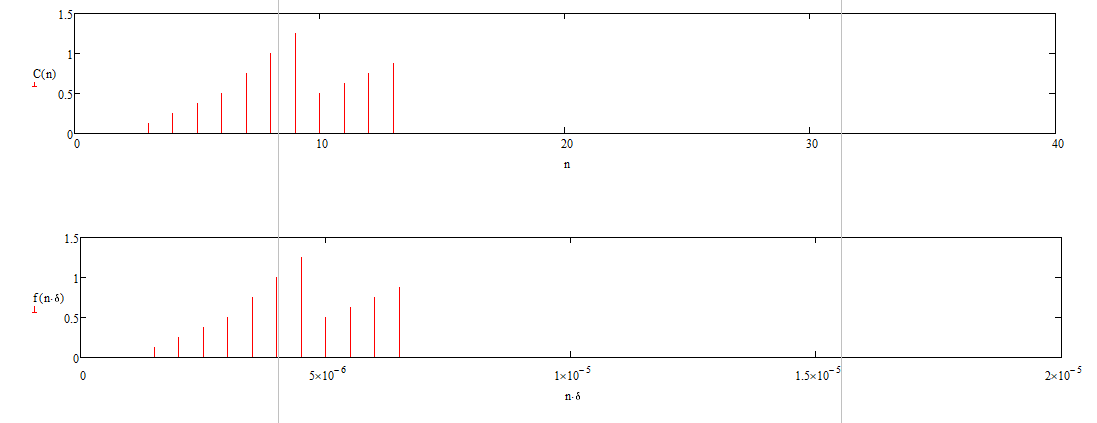
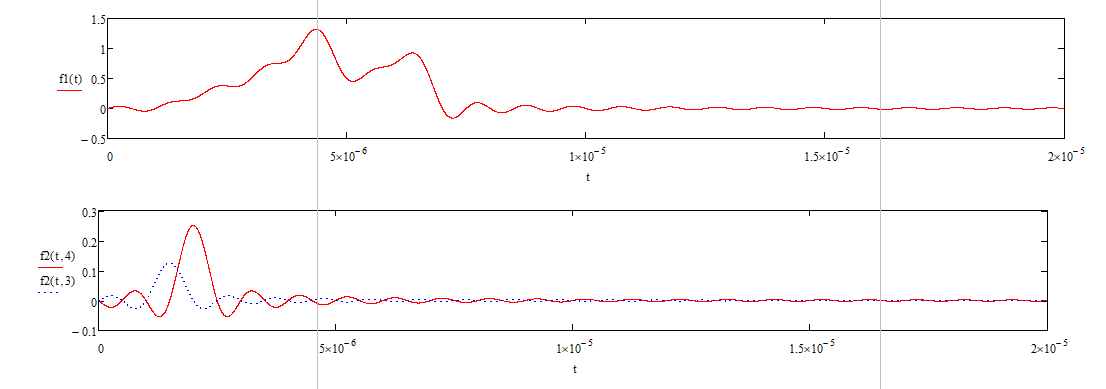
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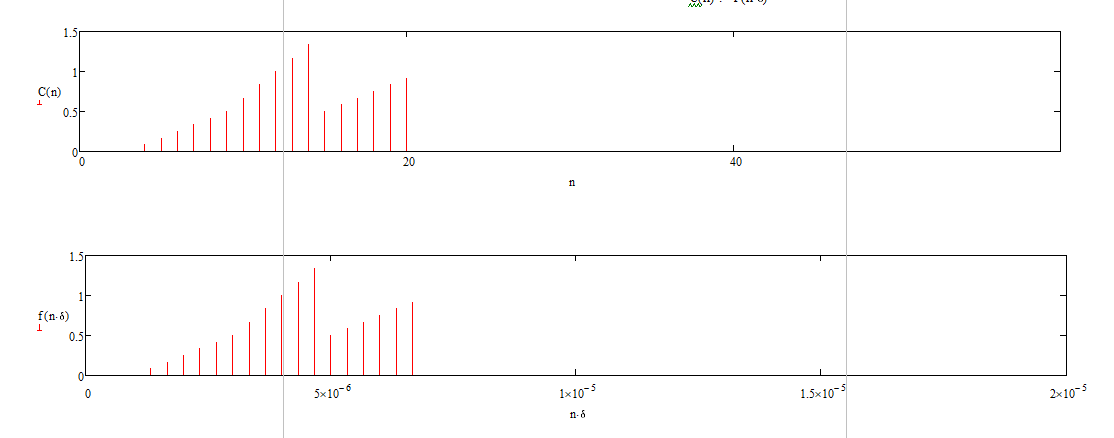
 

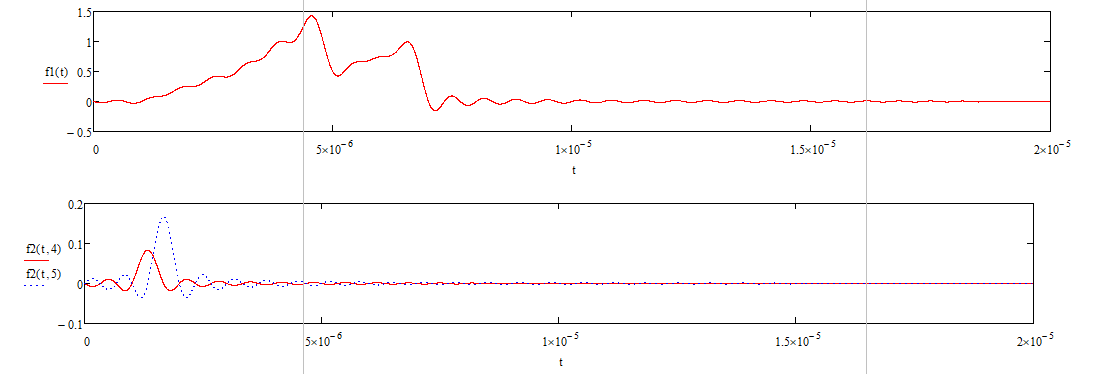
fm\*20;

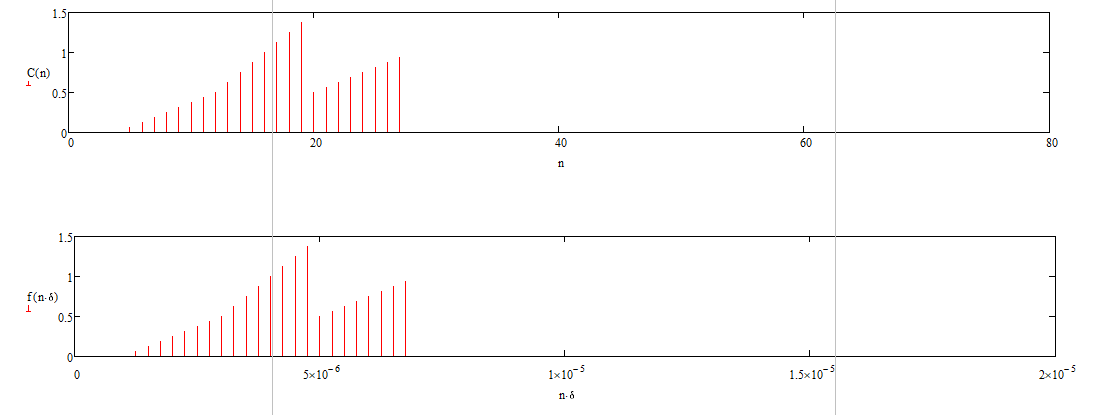
τ /2 и fm\*2;

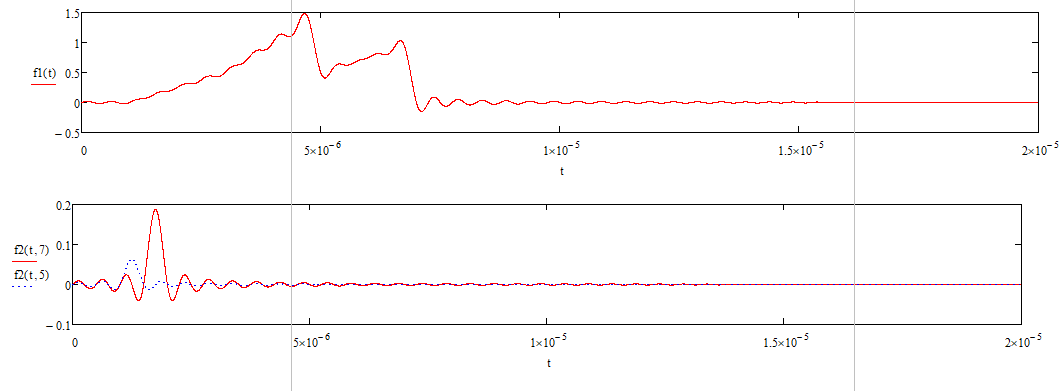
**** **** τ /2 и fm\*3;

****

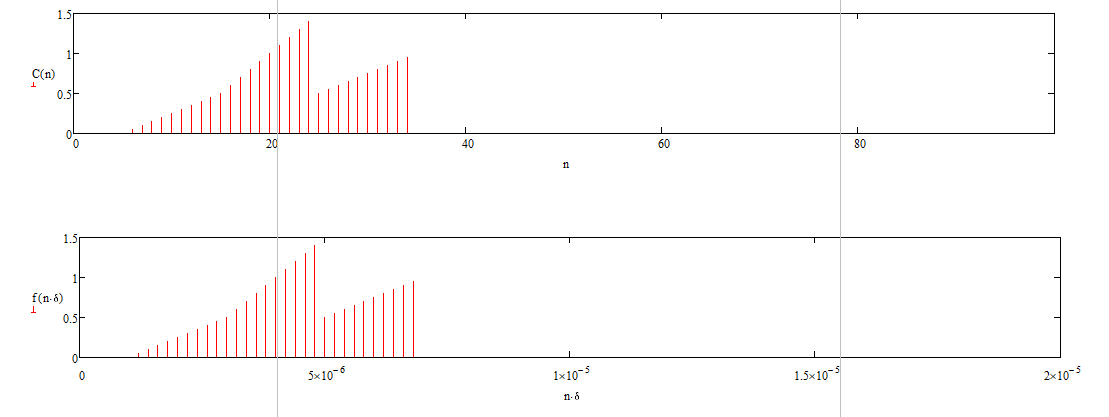
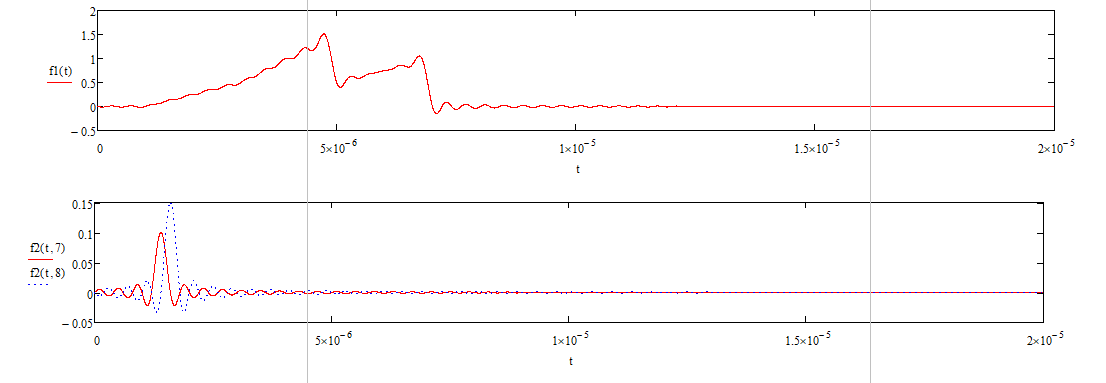
****

τ /2 и fm\*4;

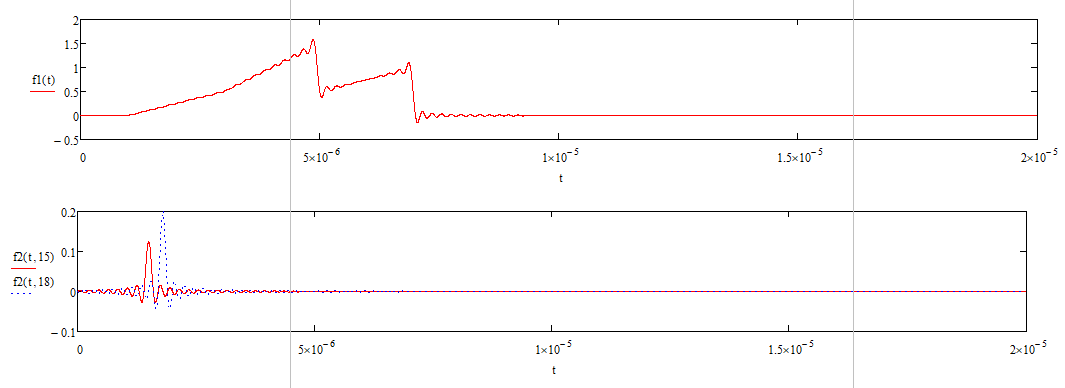
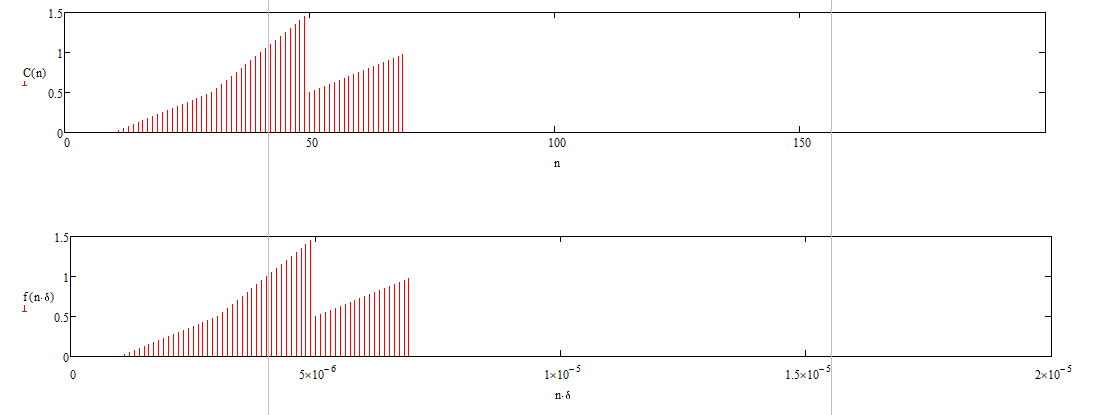
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****

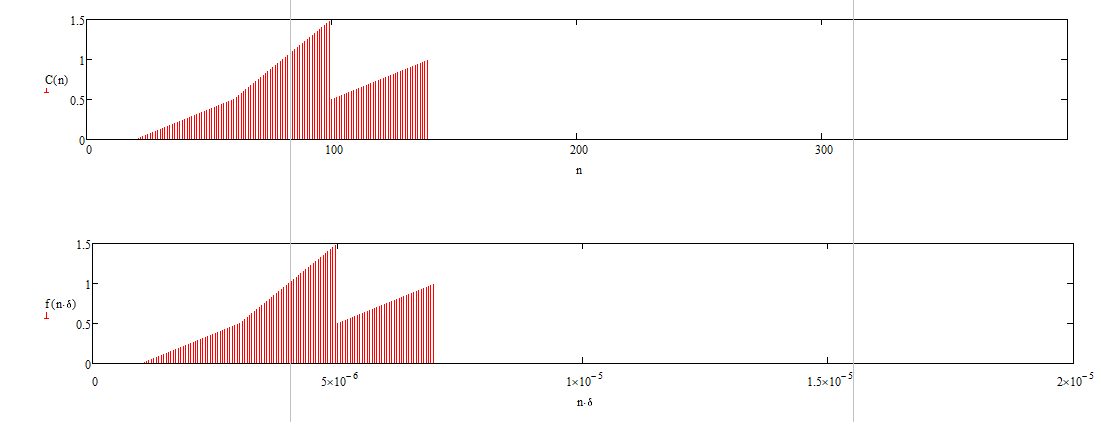
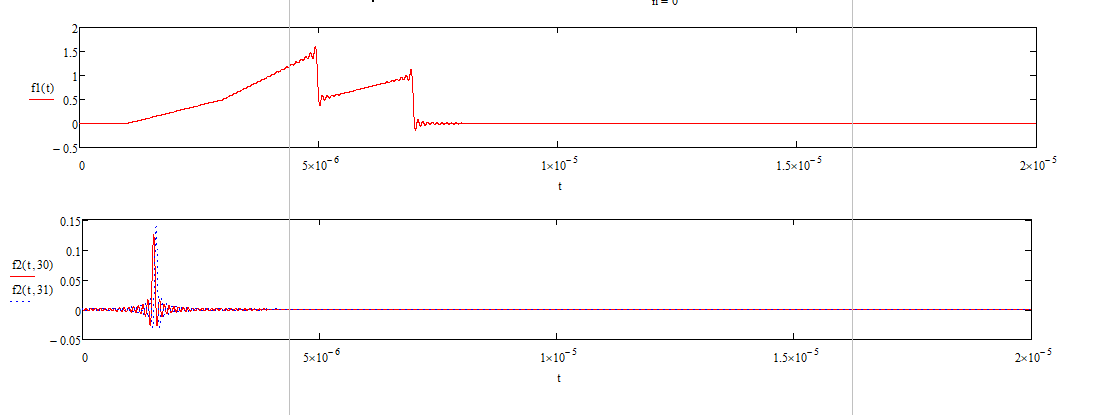
τ /2 и fm\*5;

**** ****

τ /2 и fm\*10;

****

τ /2 и fm\*20;

**** ****

**3 Выводы**

Исследовали ряд Котельникова на базе прямоугольных и треугольных импульсов.