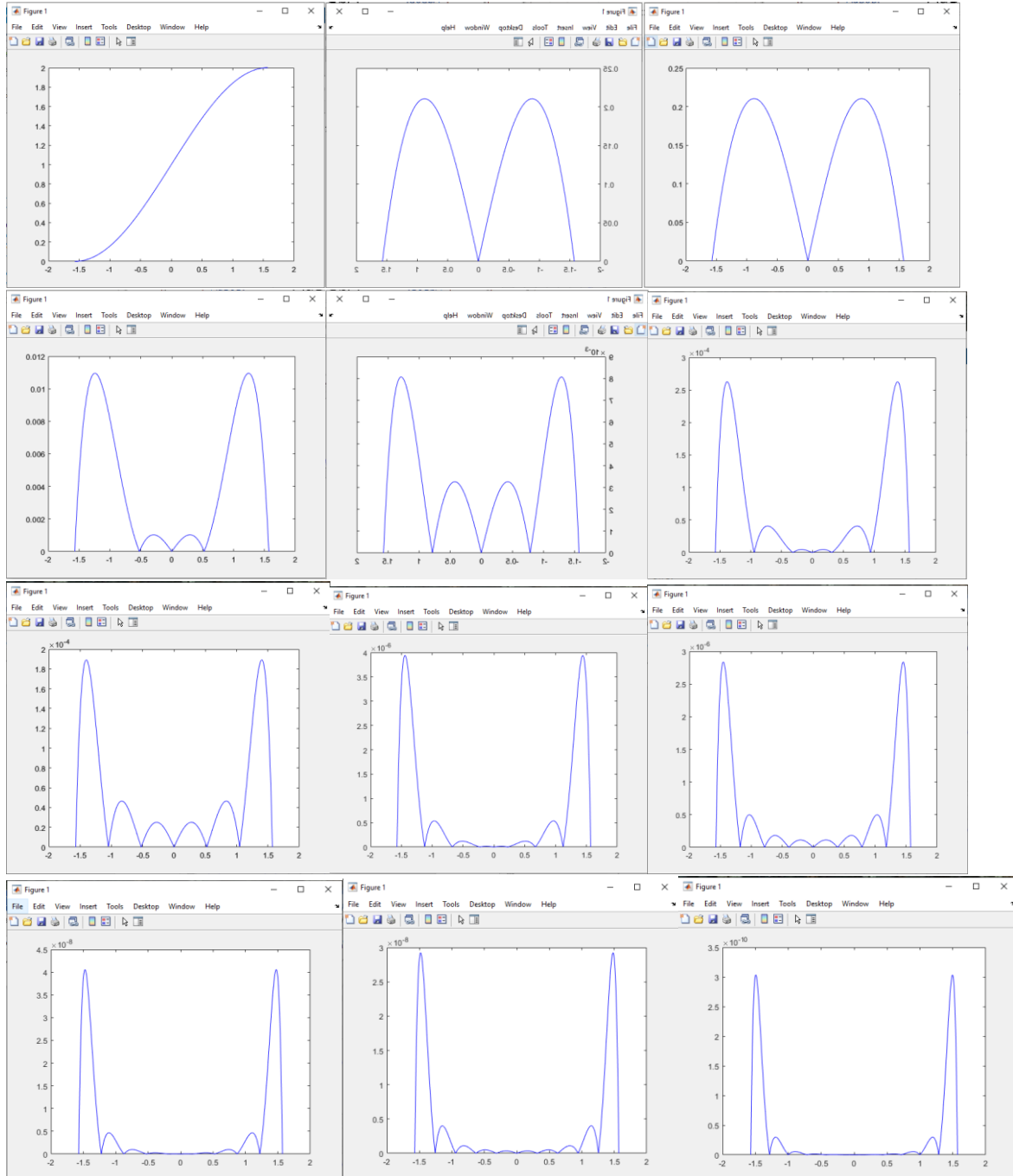


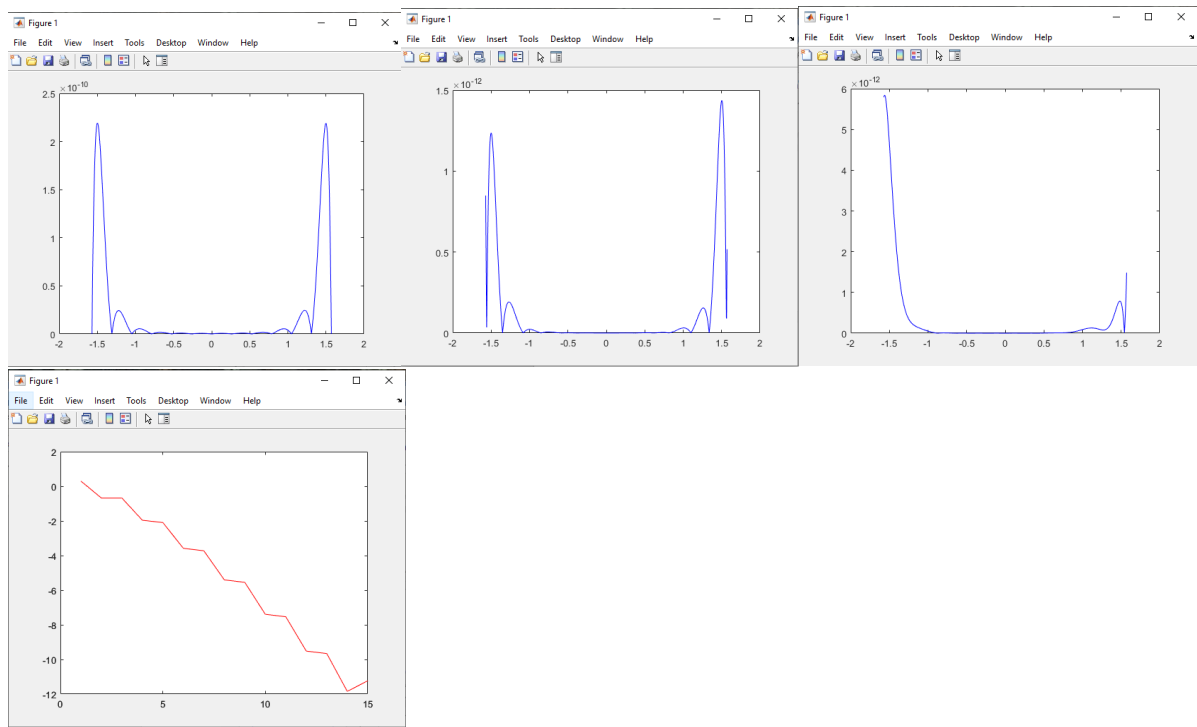
Выполнил: Смоленцев Роман Юрьевич, гр. 3530901/10006

Задание: Для $y = \sin(x)$ построить интерполяционные полиномы по узлам.
Оценить погрешность.

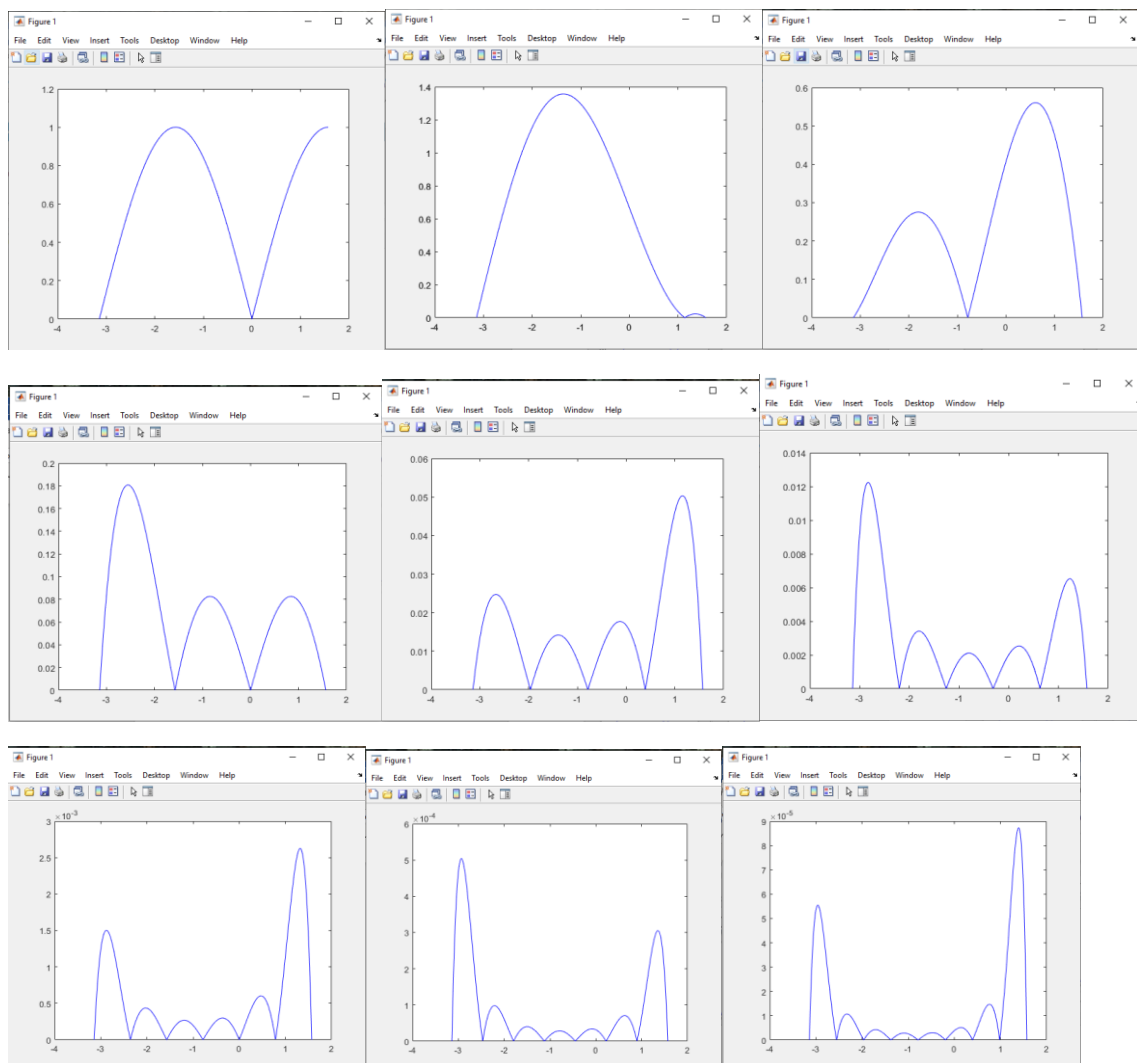
1. Для $[a;b]$:

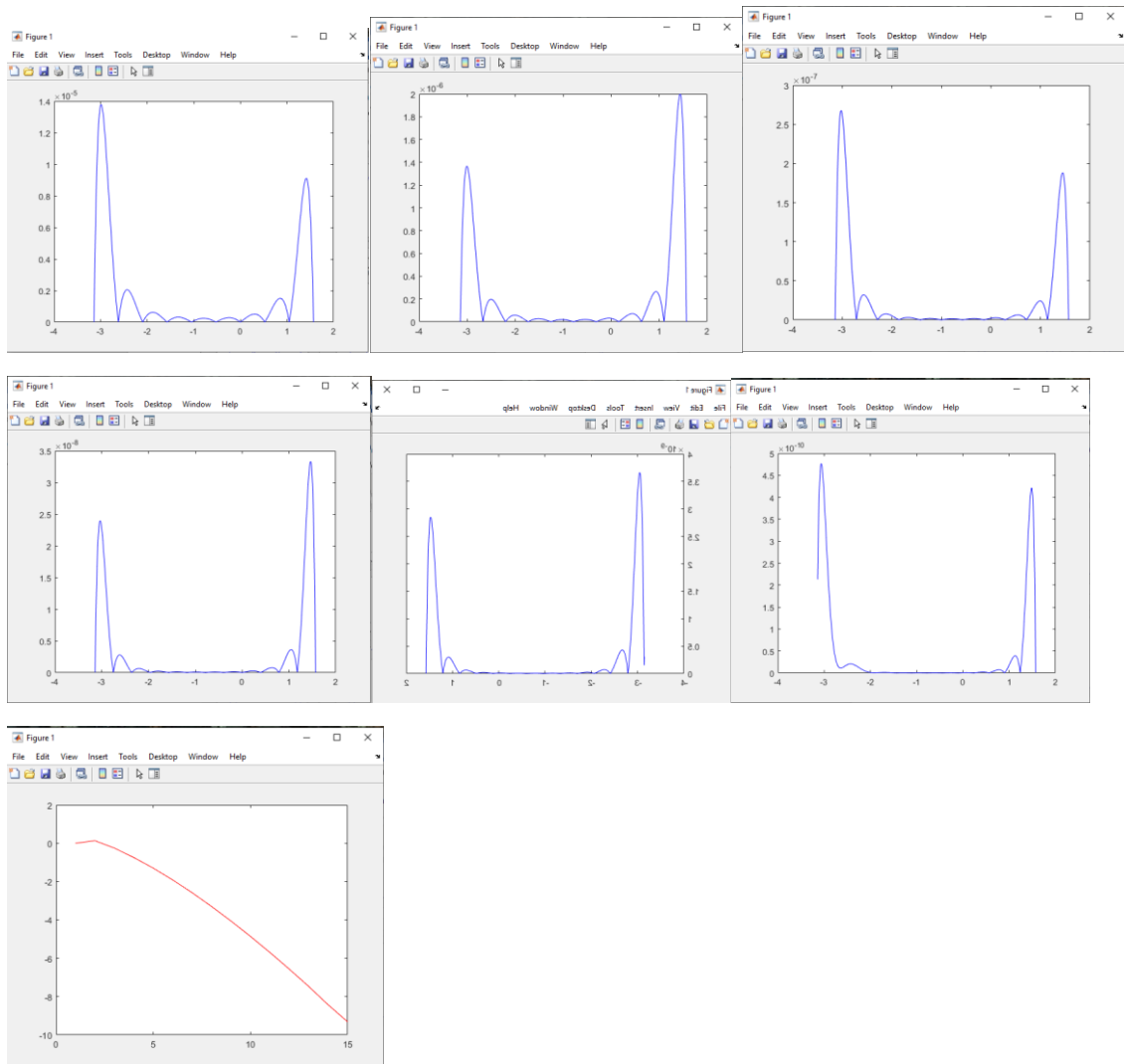
* $[-\pi/2; \pi/2]$, $m = 15$



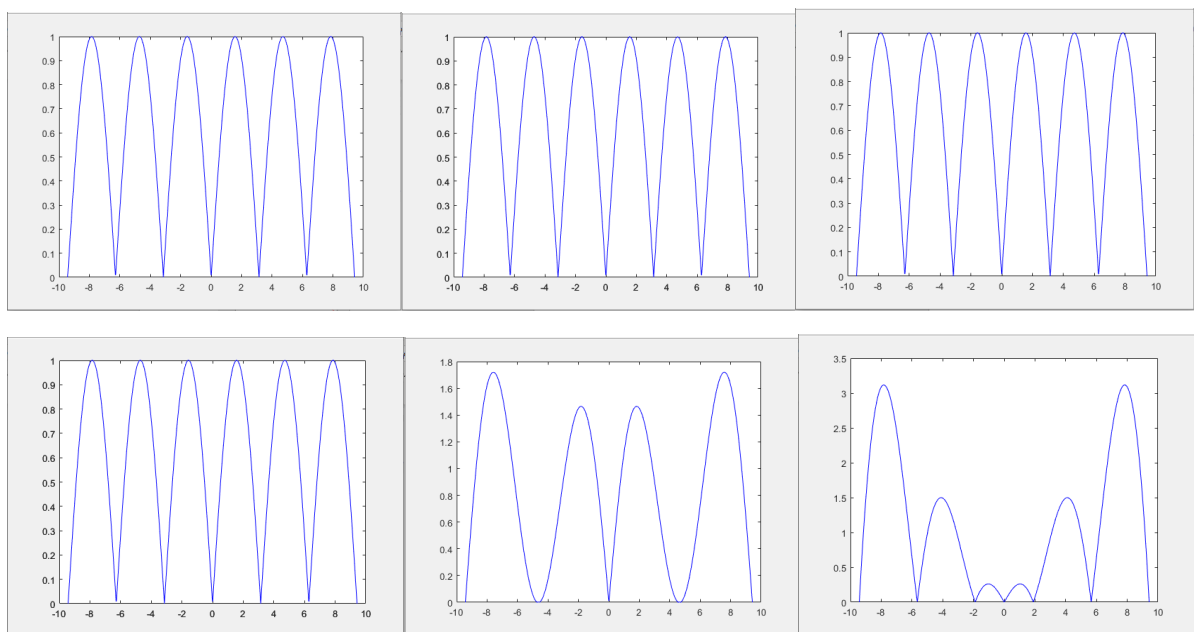


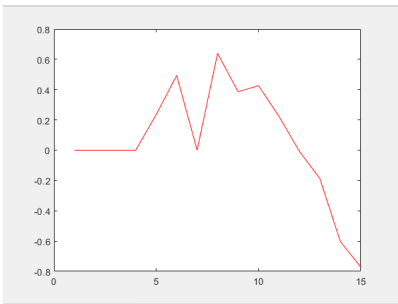
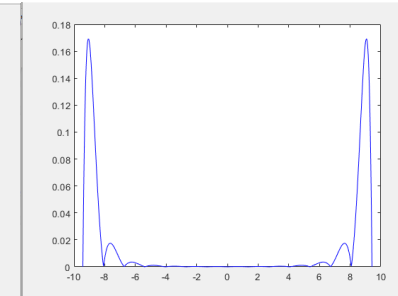
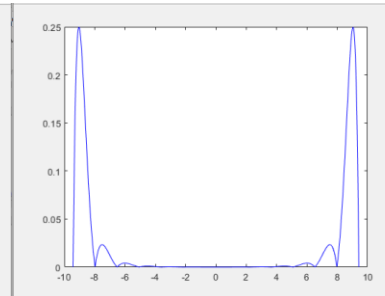
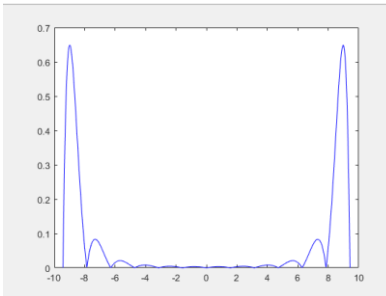
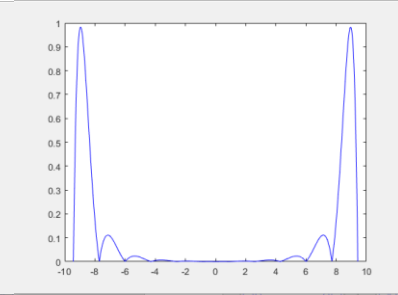
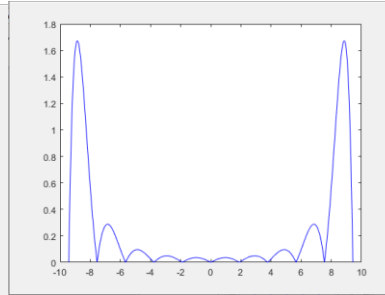
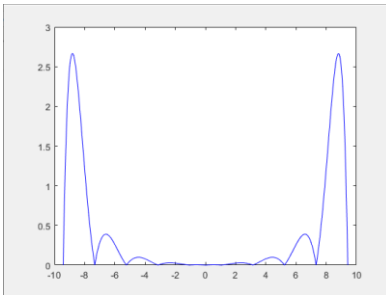
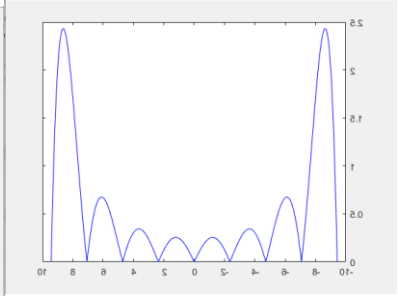
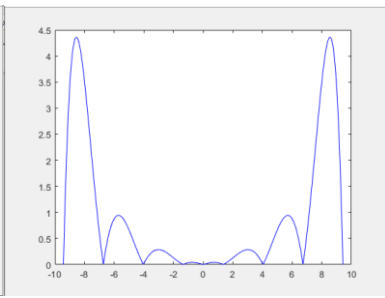
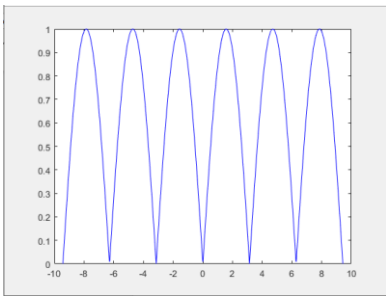
* $[-\pi; \pi/2]$, $m = 15$;



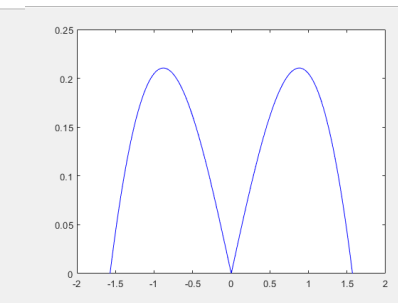
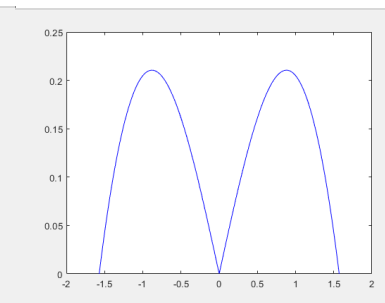
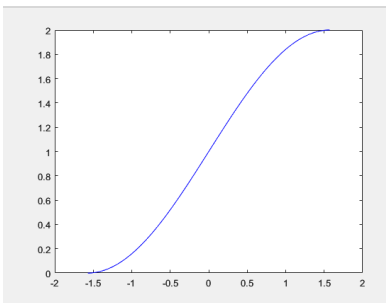


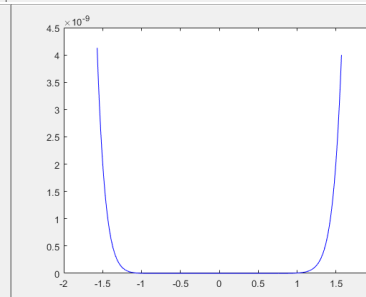
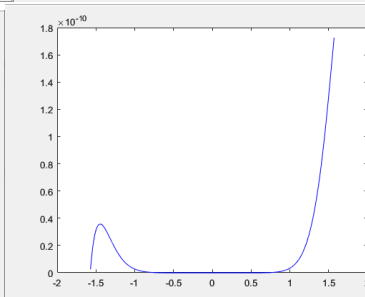
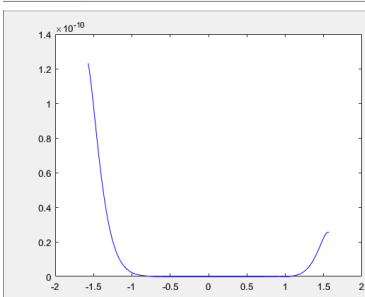
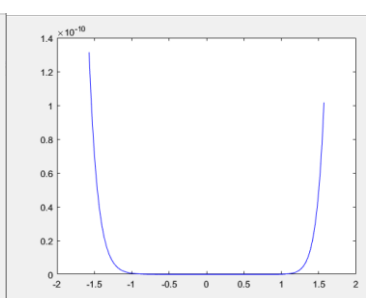
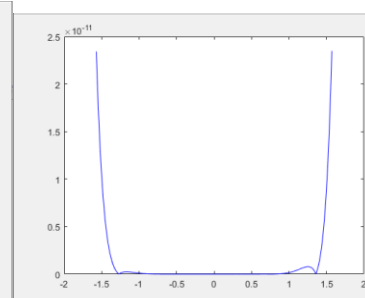
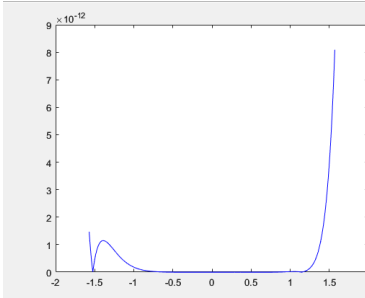
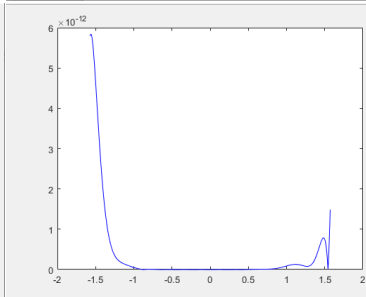
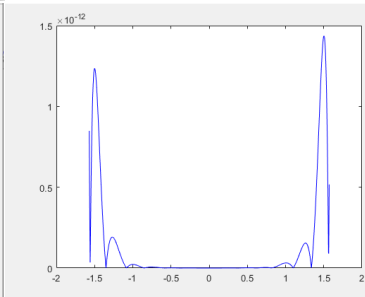
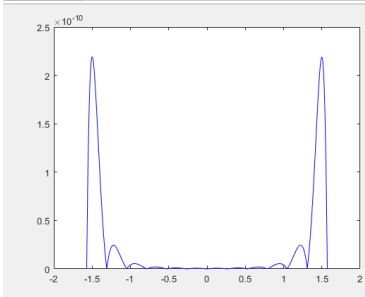
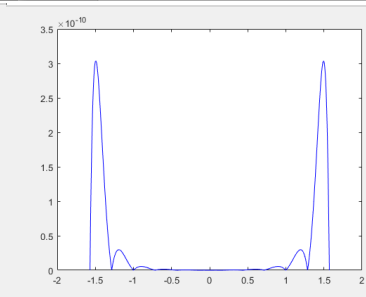
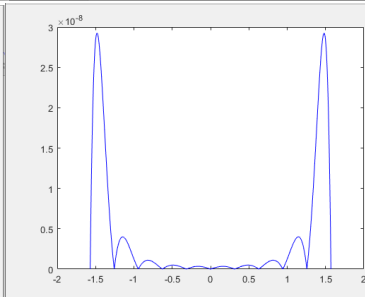
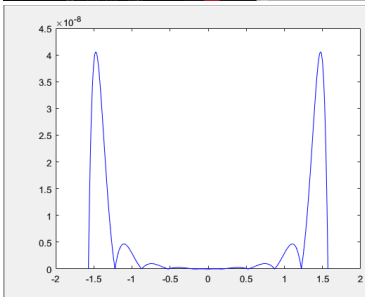
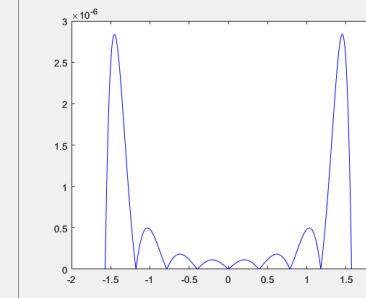
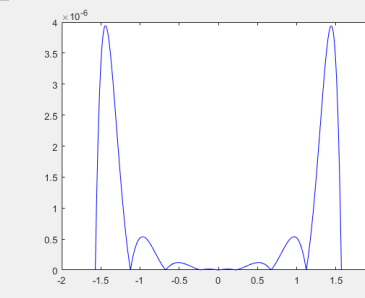
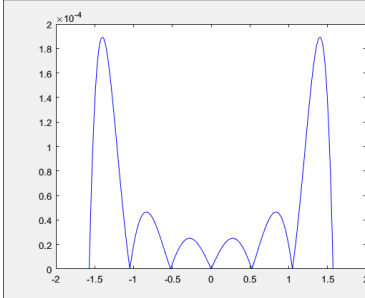
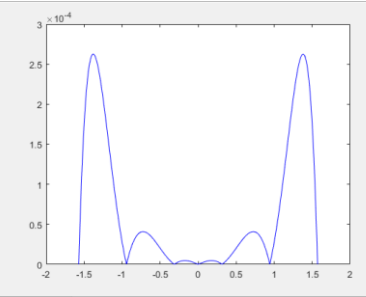
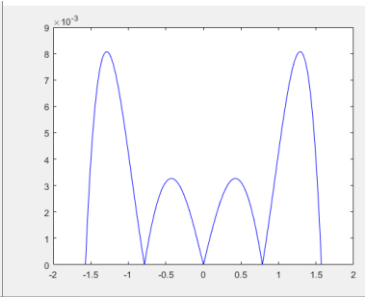
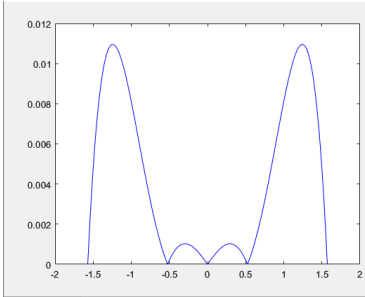
* $[-3\pi, 3\pi]$, $m = 15$;

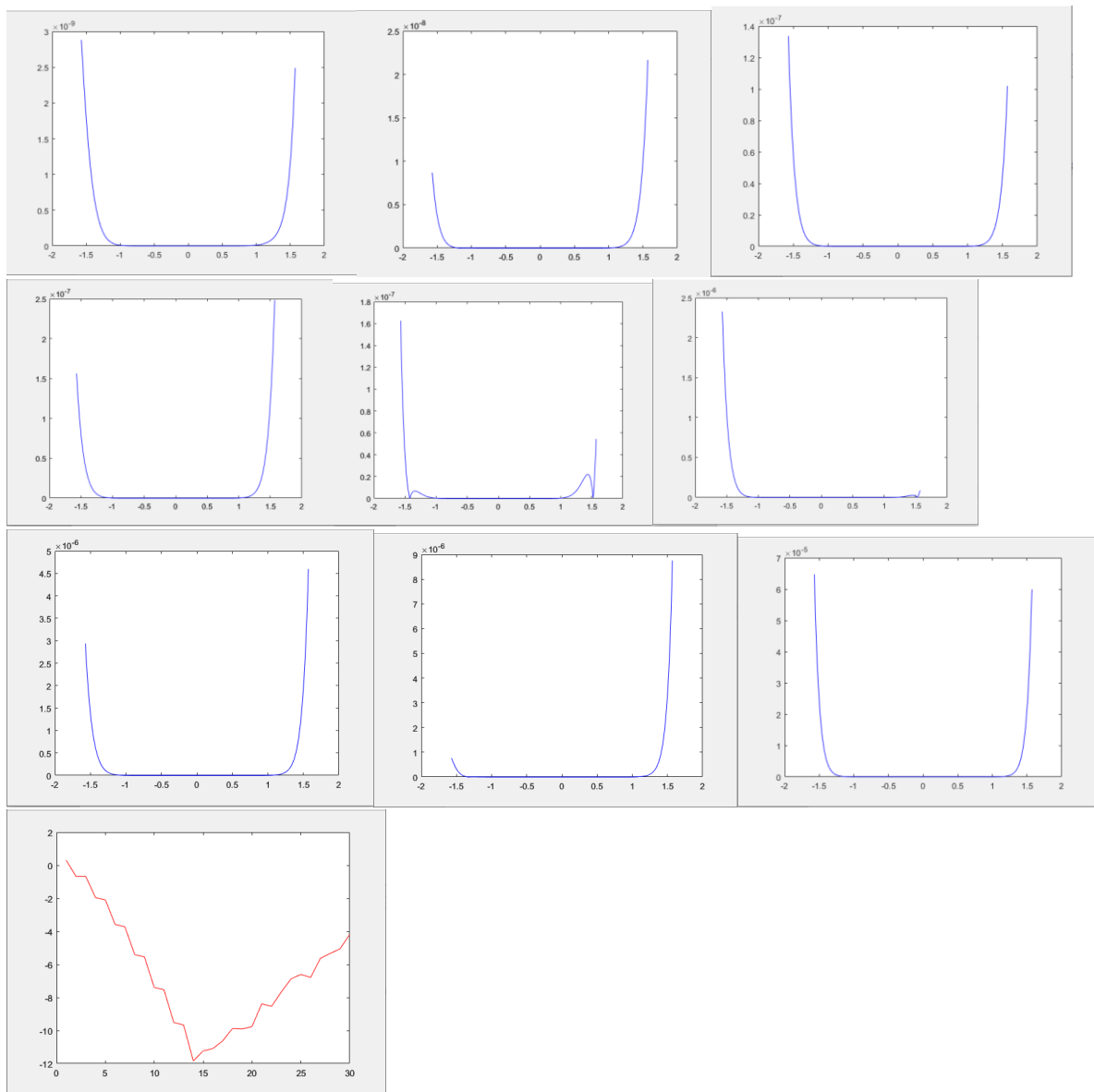




* $[-\pi/2; \pi/2]$, $m = 30$





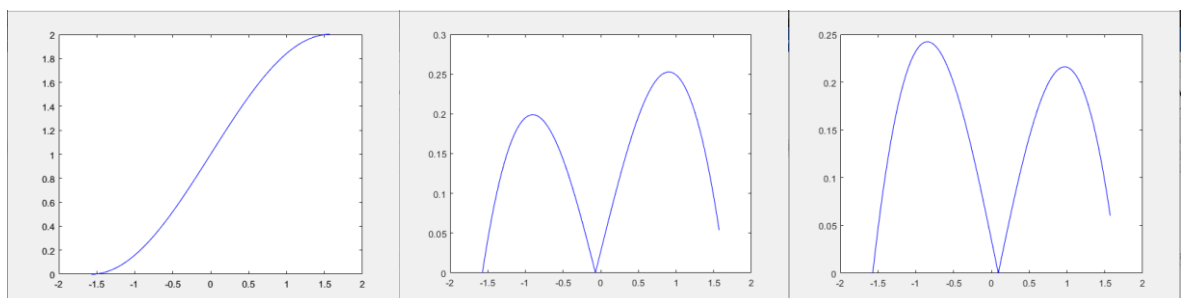


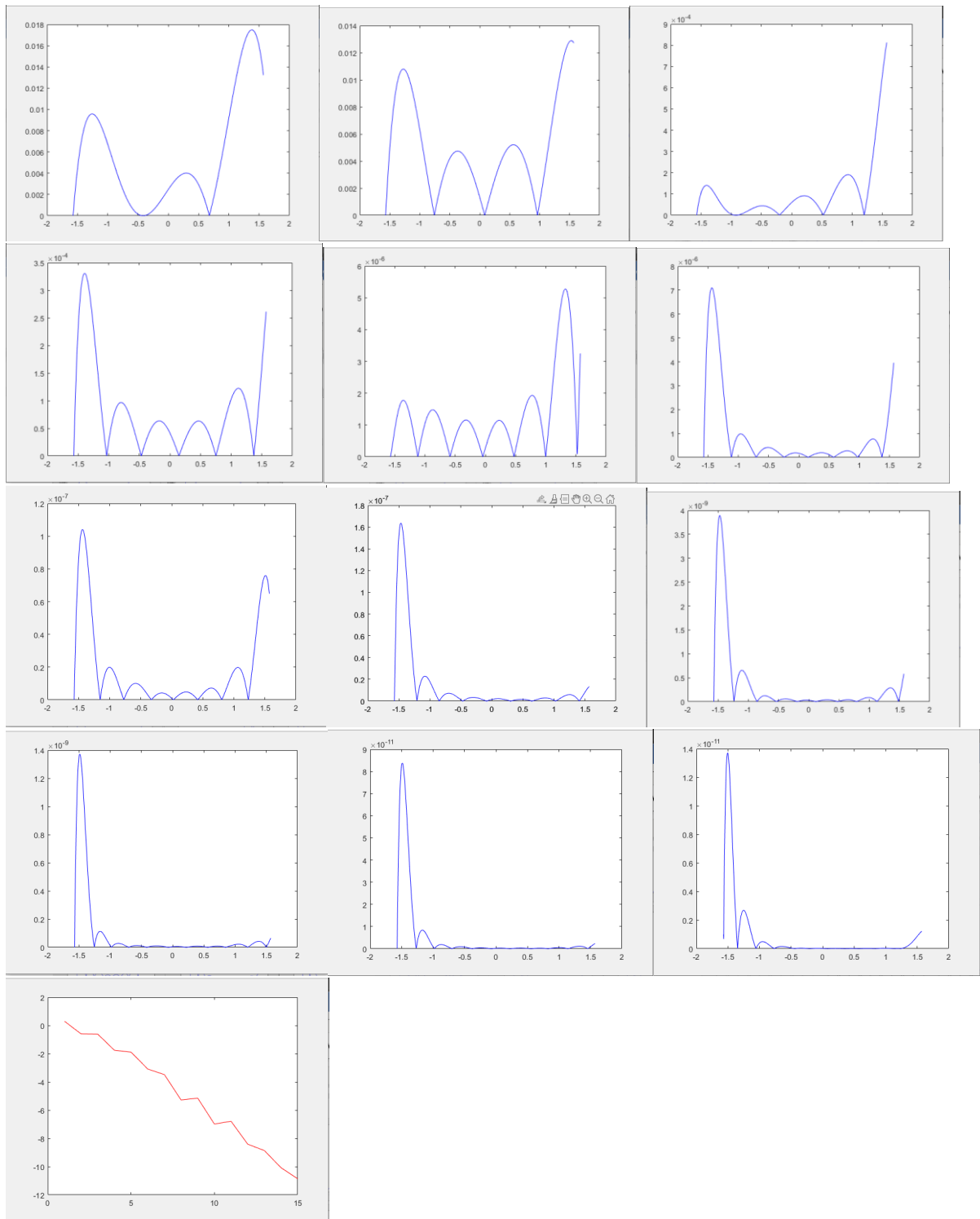
Добавление погрешности к заданным узлам интерполяции с помощью функции `rand()`:

- $[a;b]: [-\pi/2; \pi/2]$, $m = 15$
- Уровень: 0.1, 0.01, 0.001

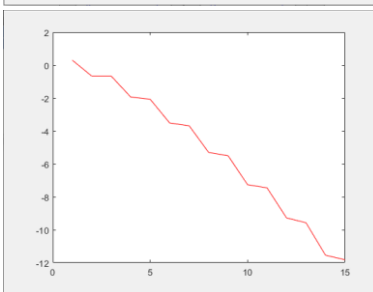
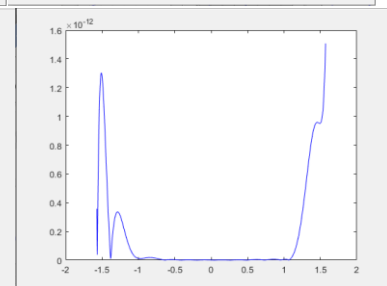
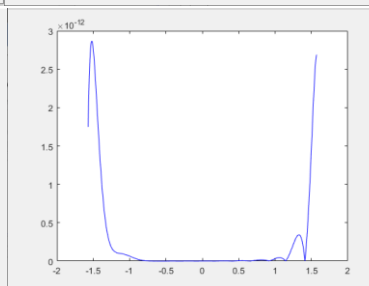
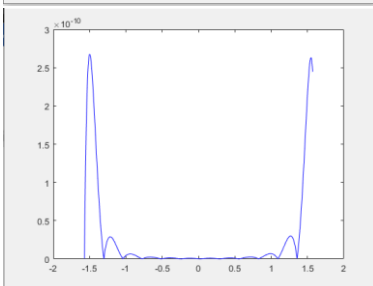
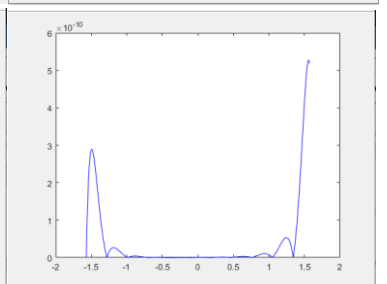
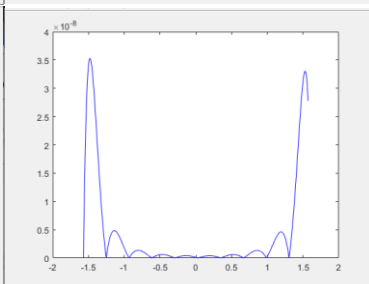
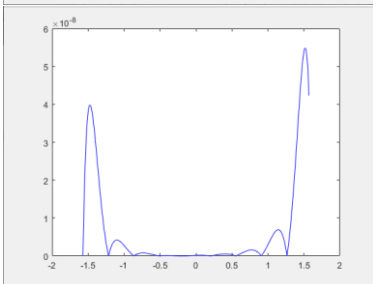
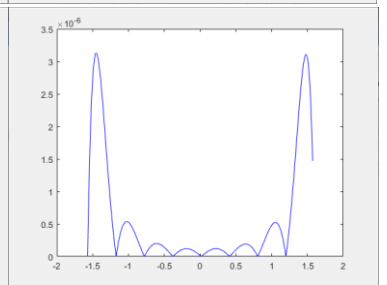
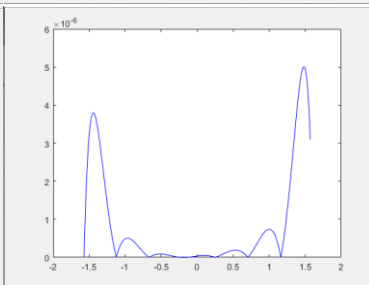
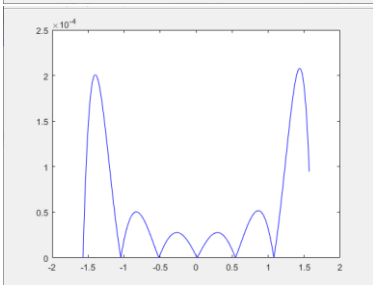
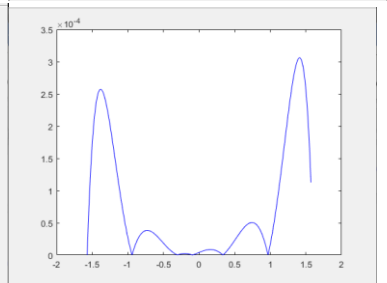
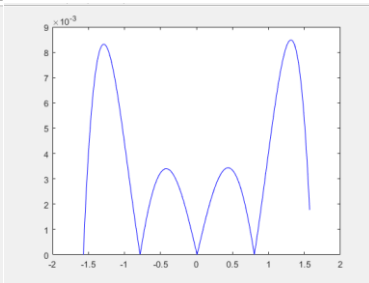
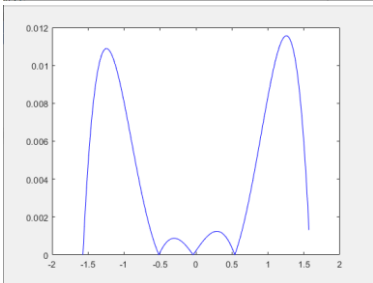
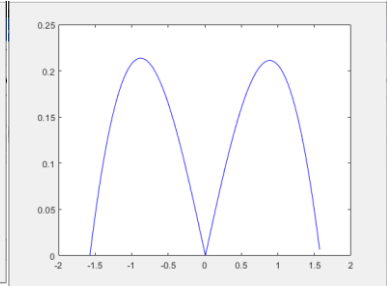
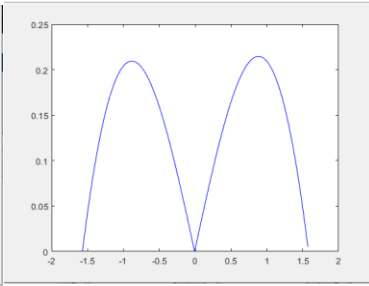
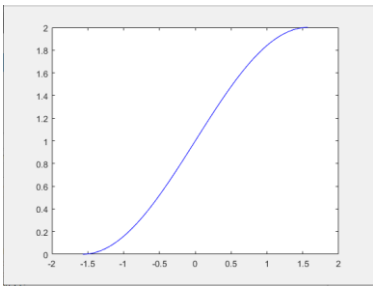
Уровень:

* 0.1:





* 0.01:



* 0.001:

