

# Algorytmy metaheurystyczne 3

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## 1 Rodzaje algorytmu

Rodzaje algorytmu - do zrobienia

## 2 Parametry algorytmów

Parametry algorytmów - do zrobienia

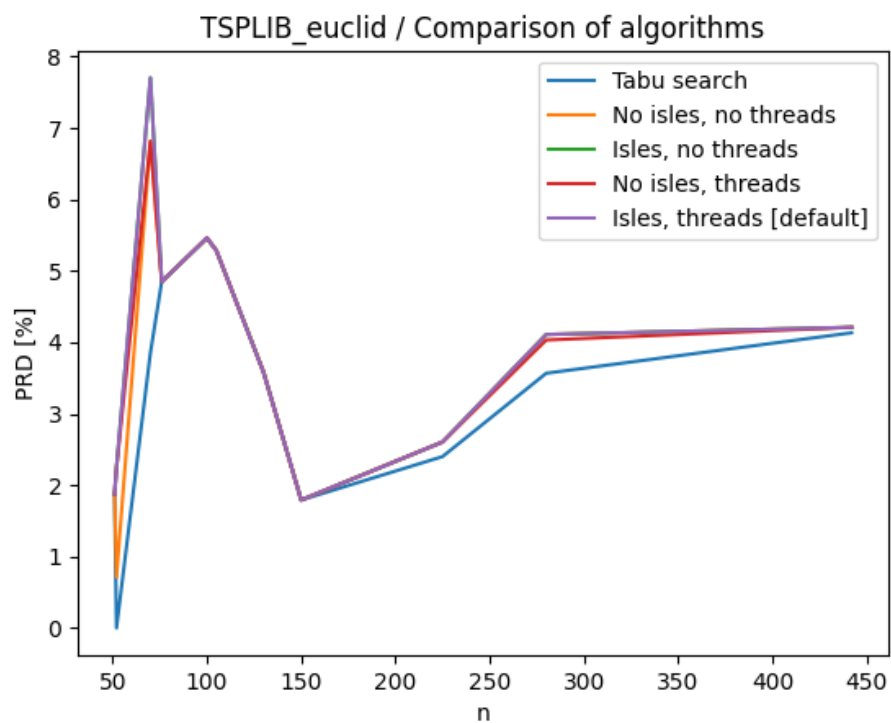
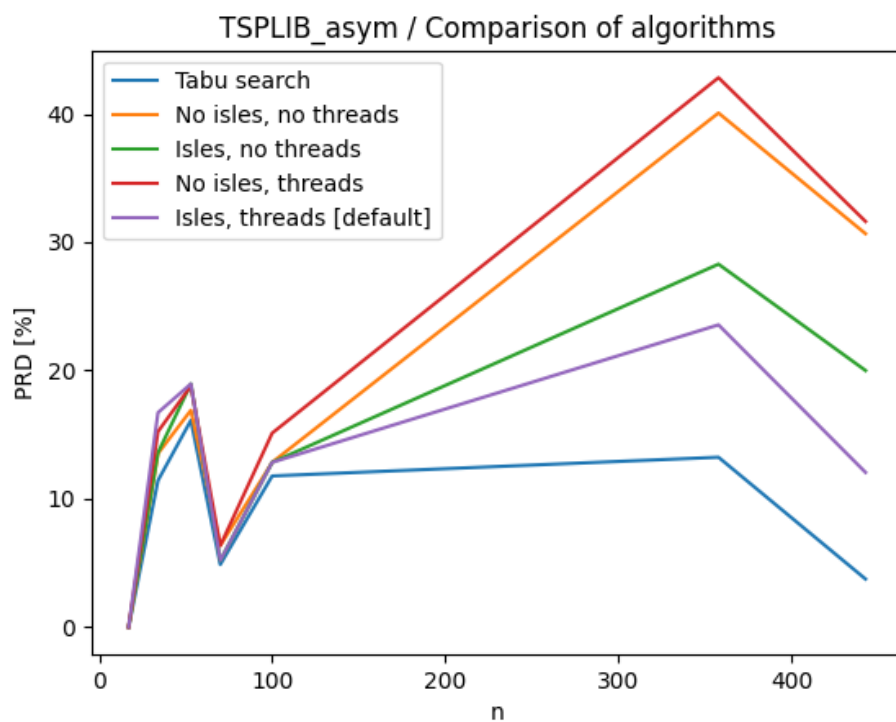
## 3 Teoretyczna złożoność

Teoretyczna złożoność - do zrobienia

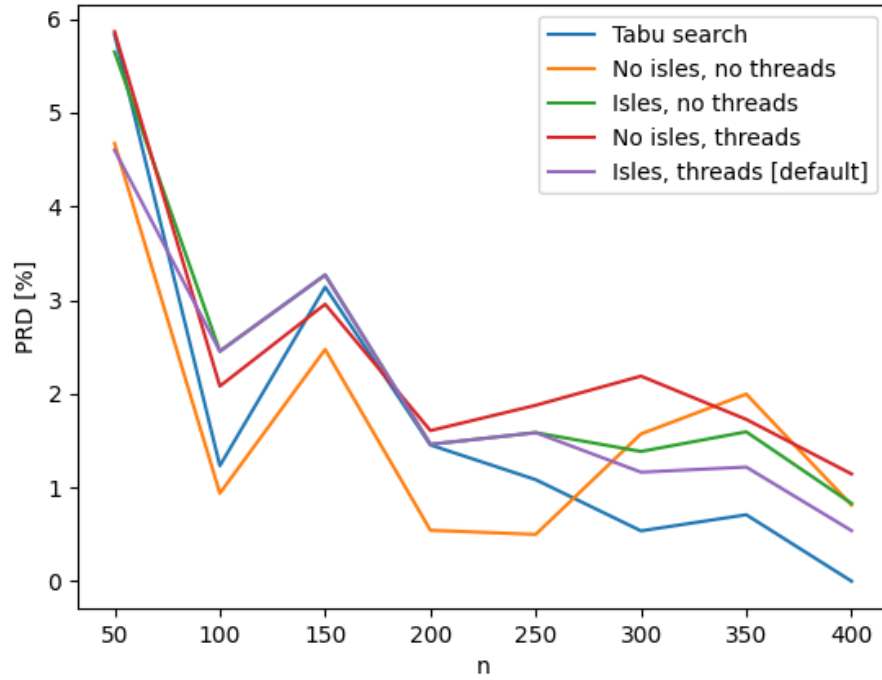
## 4 Wykonane eksperymenty

Strojenie algorytmu zostało wykonane na podstawie danych z TSPLIB. Wybrane zostały parametry, dla których algorytm najlepiej zachowywał się podczas testowania. Jeśli jeden z dwóch parametrów miał np. lepsze wyniki od drugiego dla jednych danych (np. dla mniejszych wielkości macierzy), a gorsze dla innych, wybierany był jeden z tych parametrów po przemyśleniu. Po strojeniu zostały przeprowadzone eksperymenty porównujące algorytm w wersji oraz z parametrami wybranymi jako domyślne: z innymi wersjami algorytmu oraz z tabu search, a także z różnymi wartościami parametrów. Nie w każdym eksperymencie czy nie dla każdego typu macierzy domyślny algorytm okazał się najlepszy, natomiast strojenie pomogło nam znaleźć taki algorytm oraz parametry, które średnio zachowują się najlepiej.

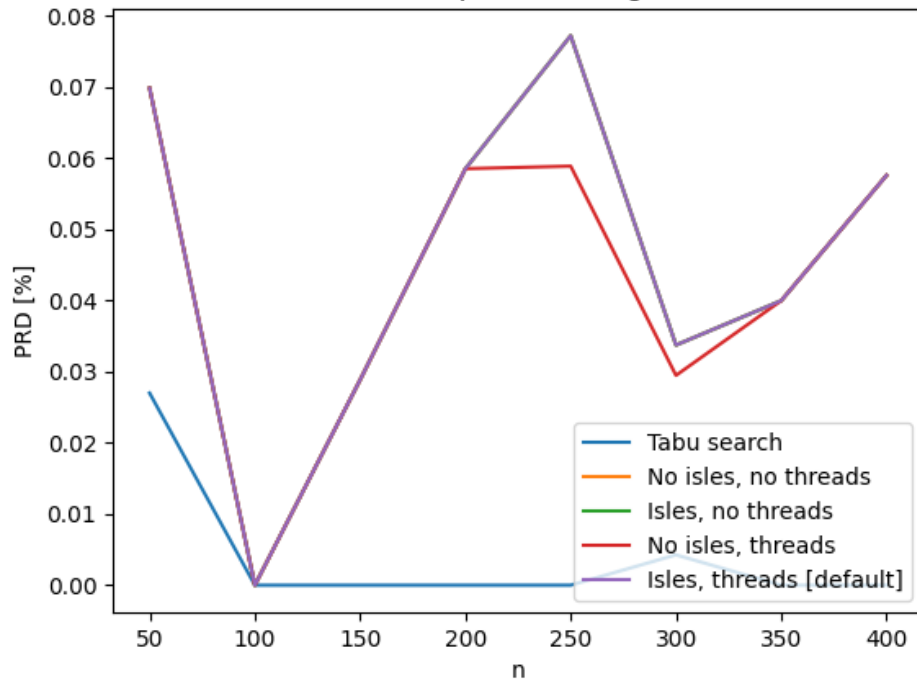
#### 4.1 Porównanie wersji algorytmu genetycznego i tabu search

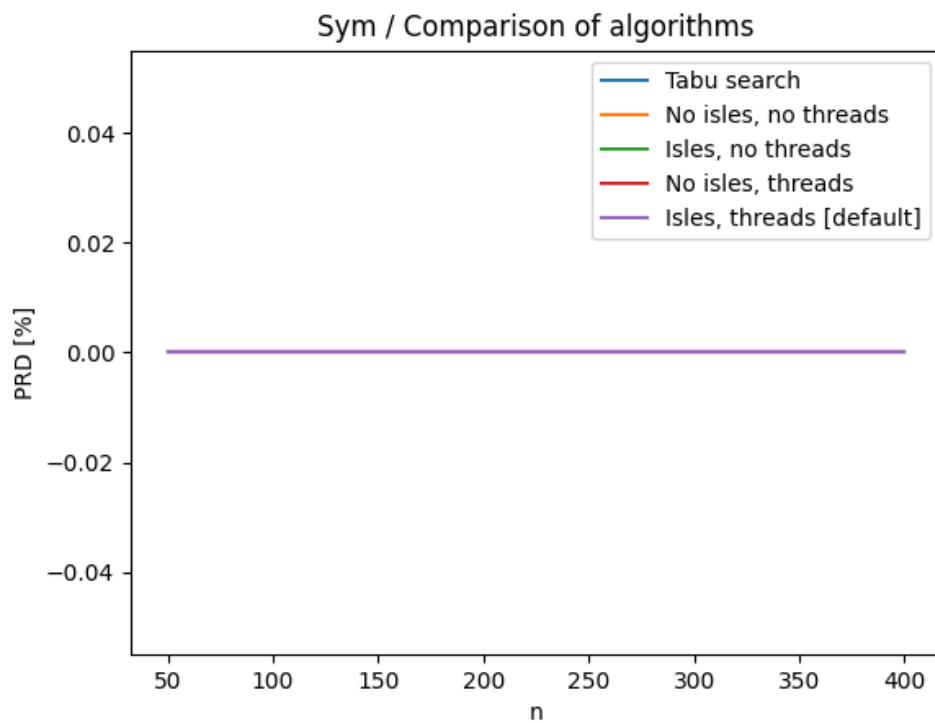


Asym / Comparison of algorithms

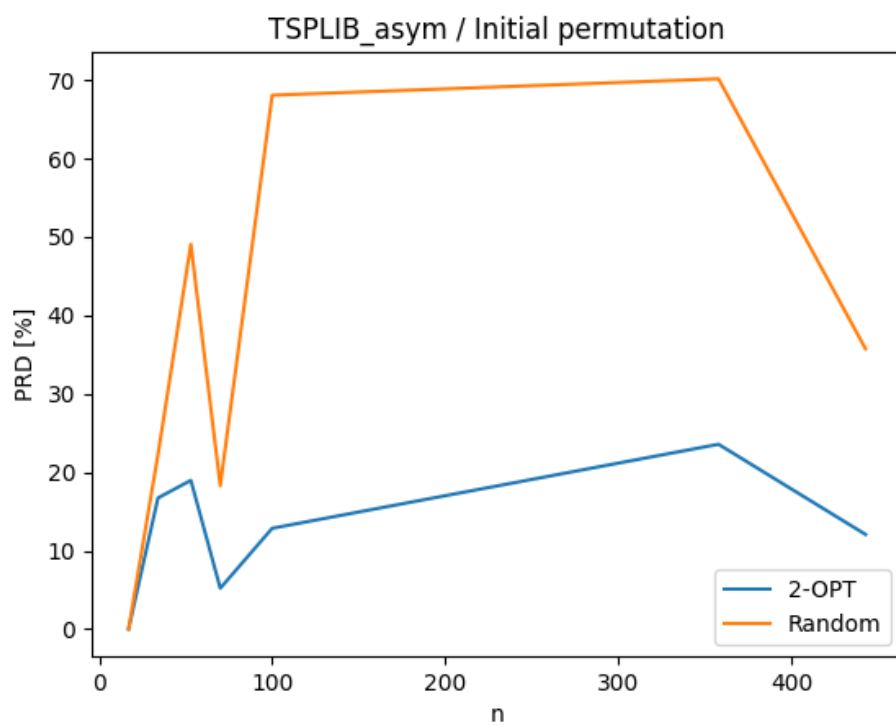


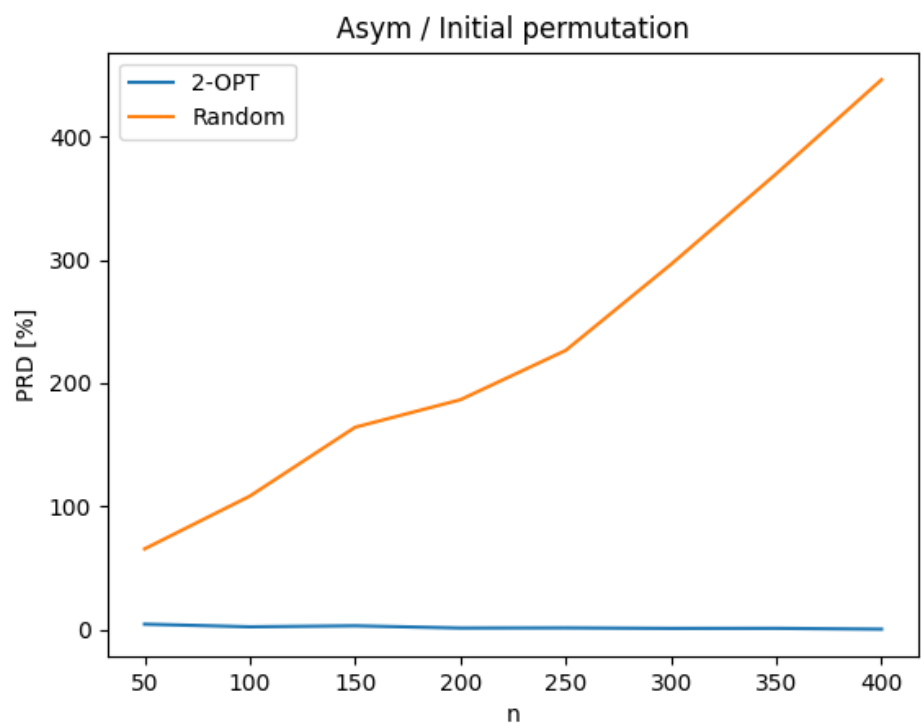
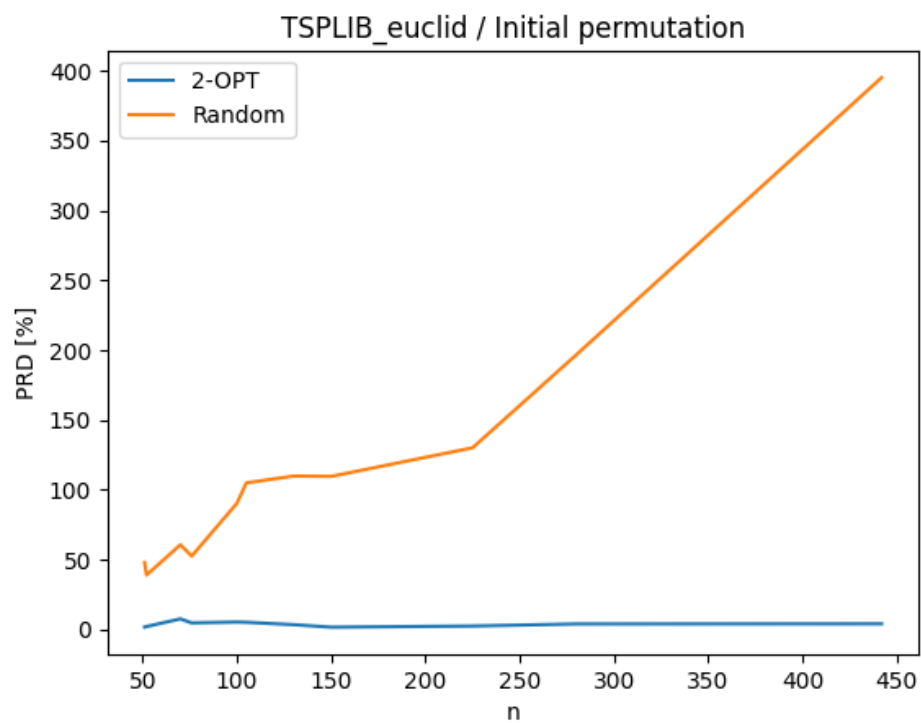
Euclid / Comparison of algorithms

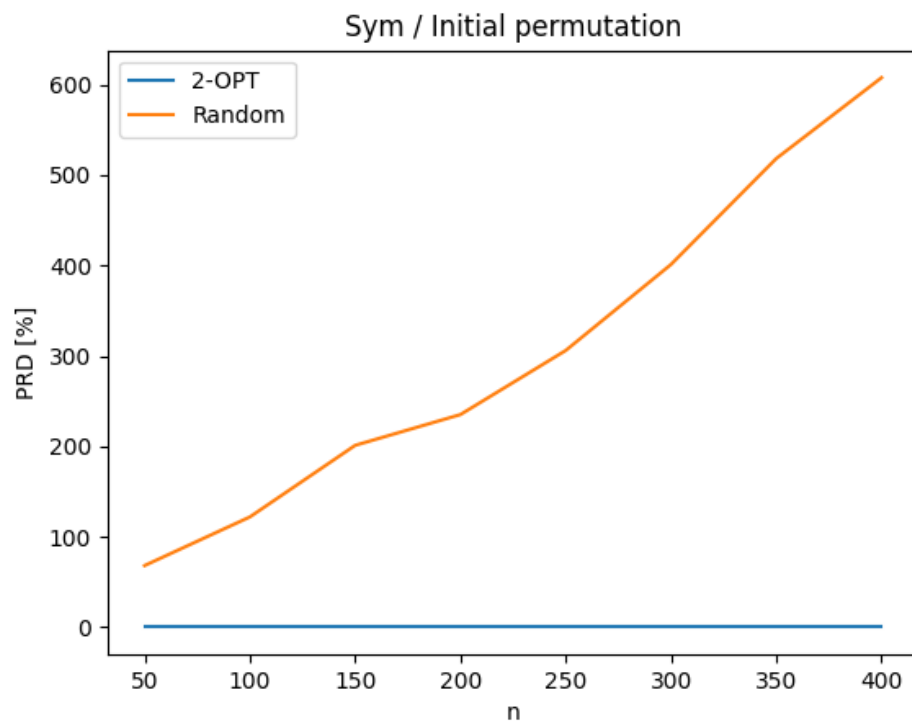
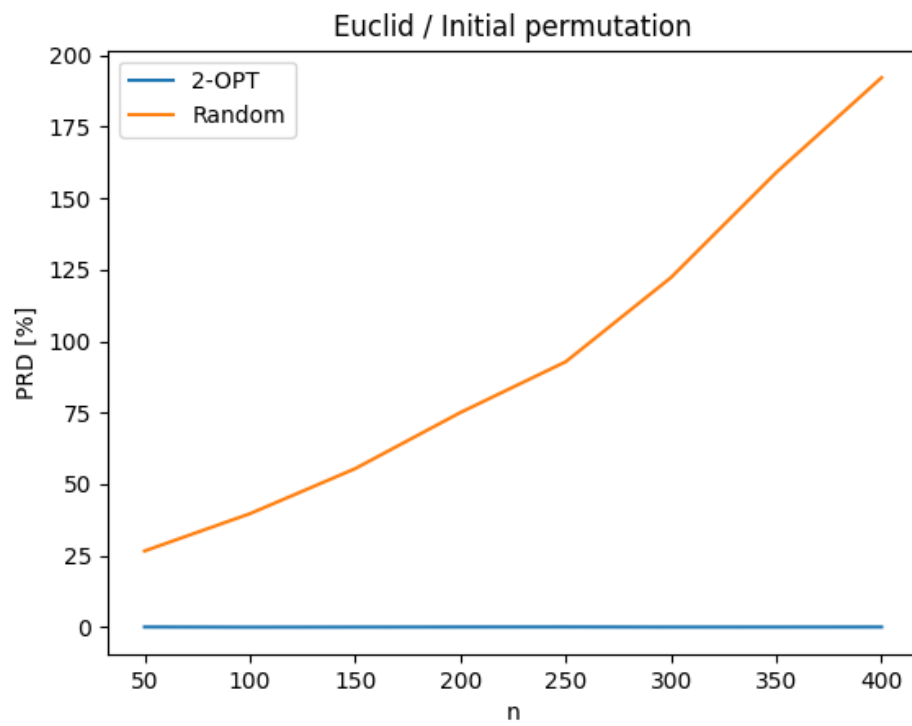




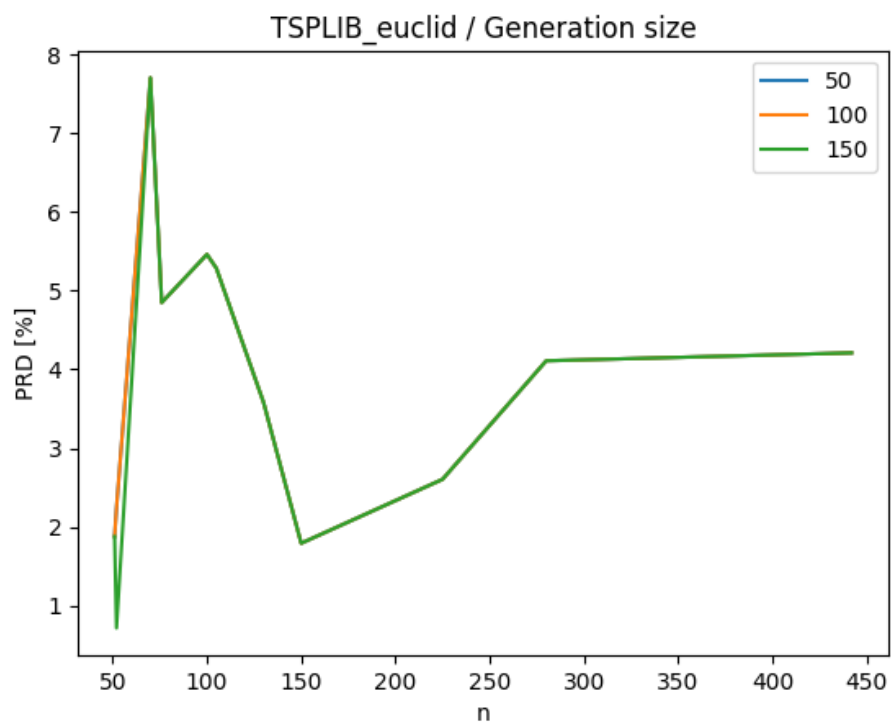
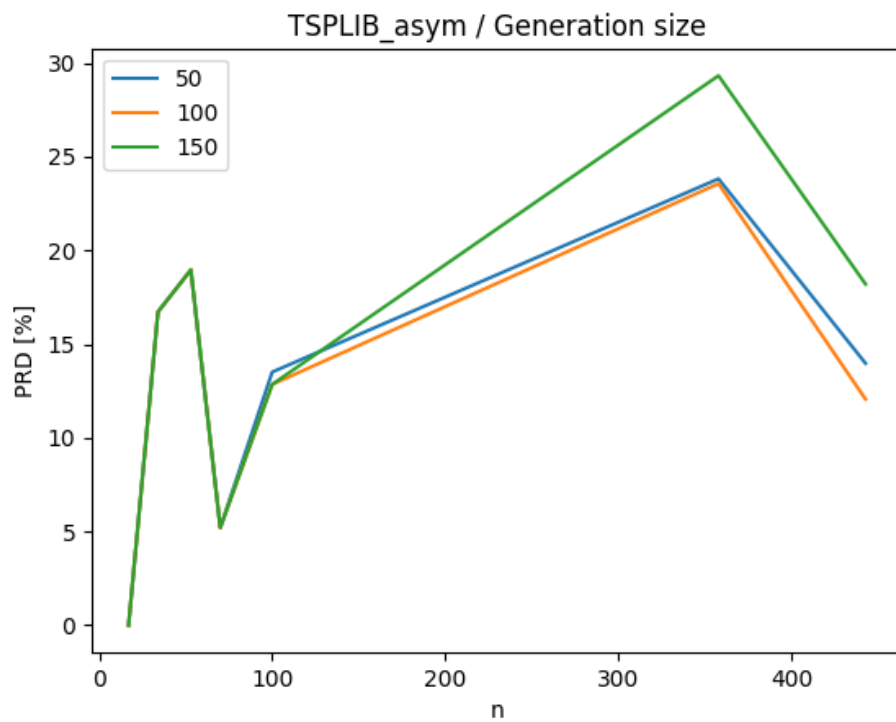
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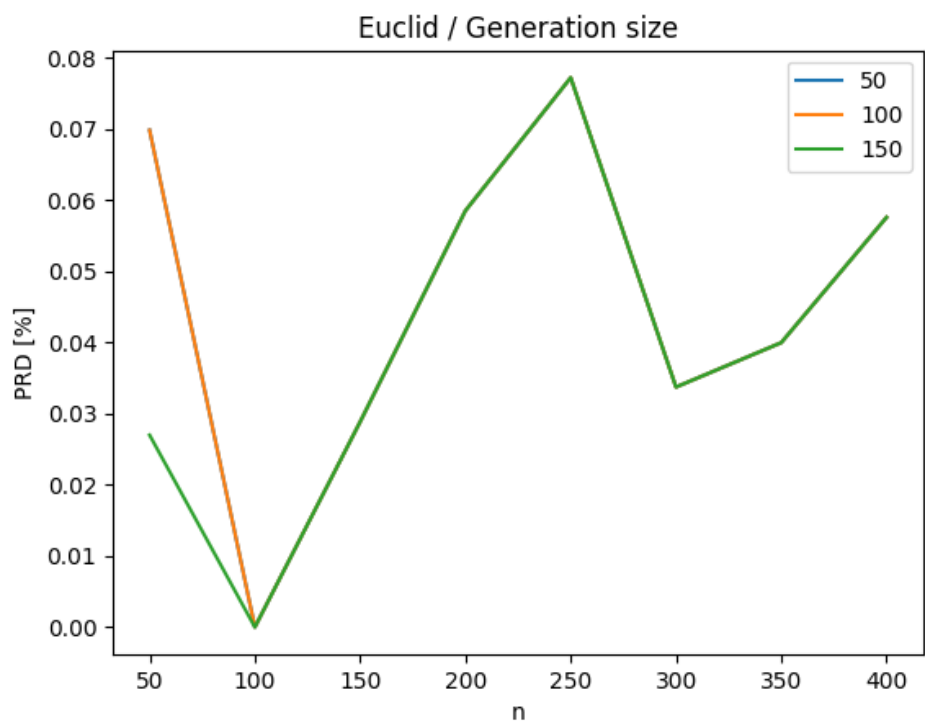
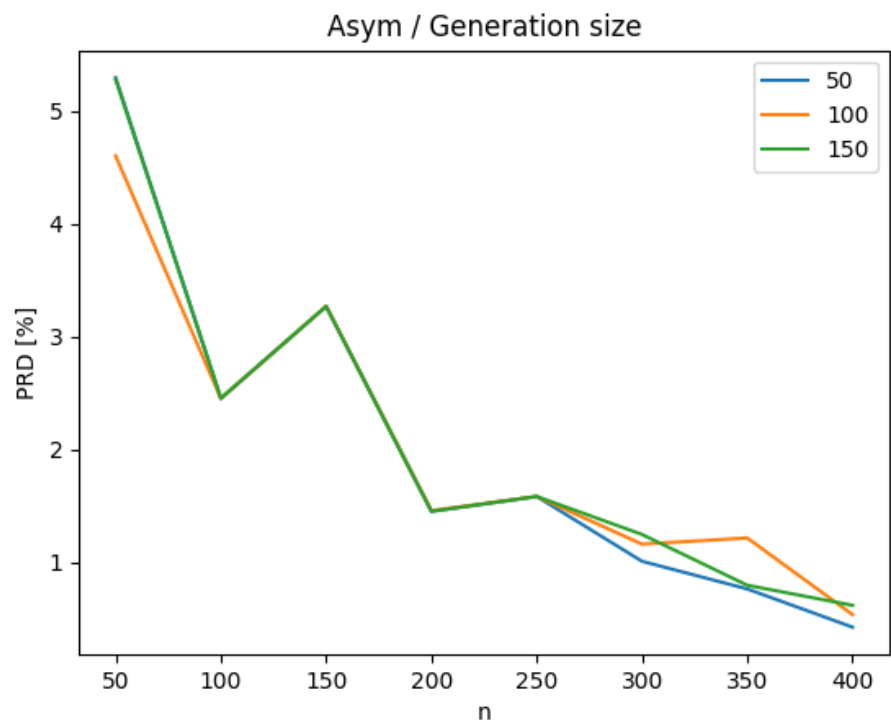




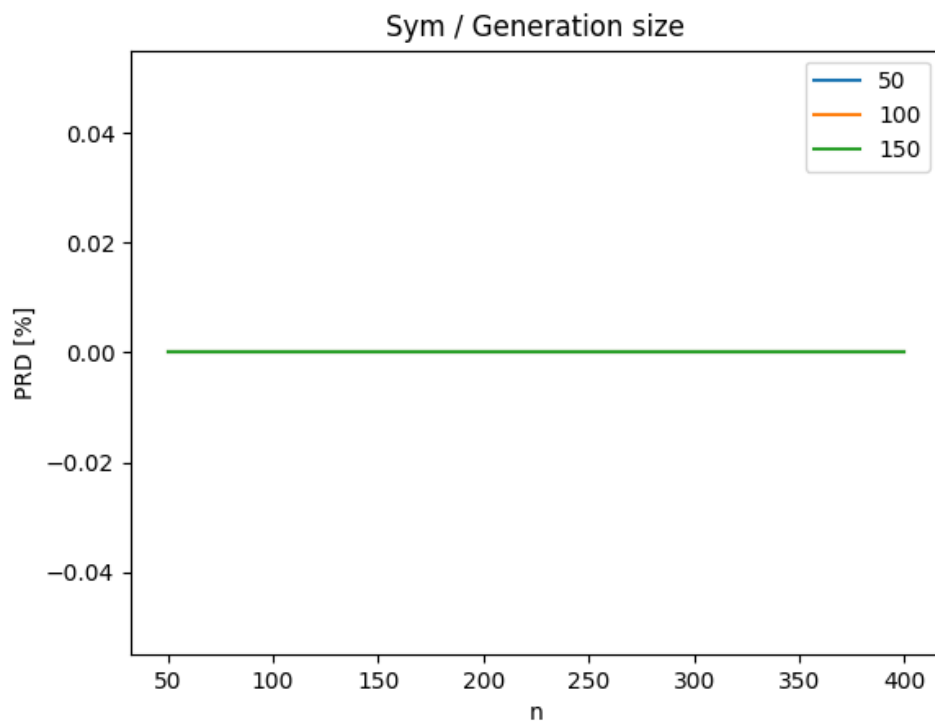


### 4.3 Wielkość pokolenia

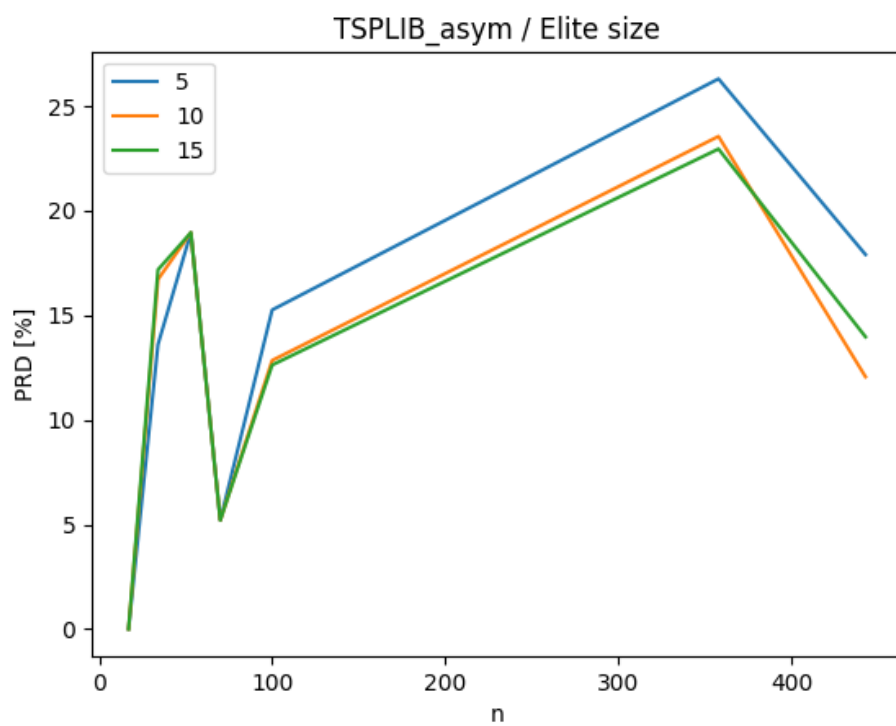


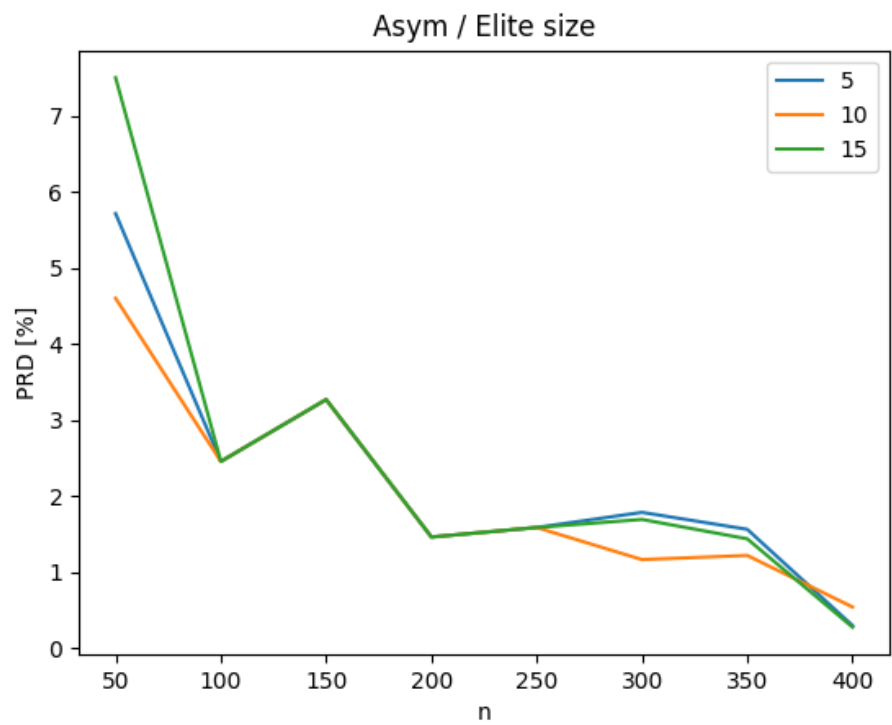
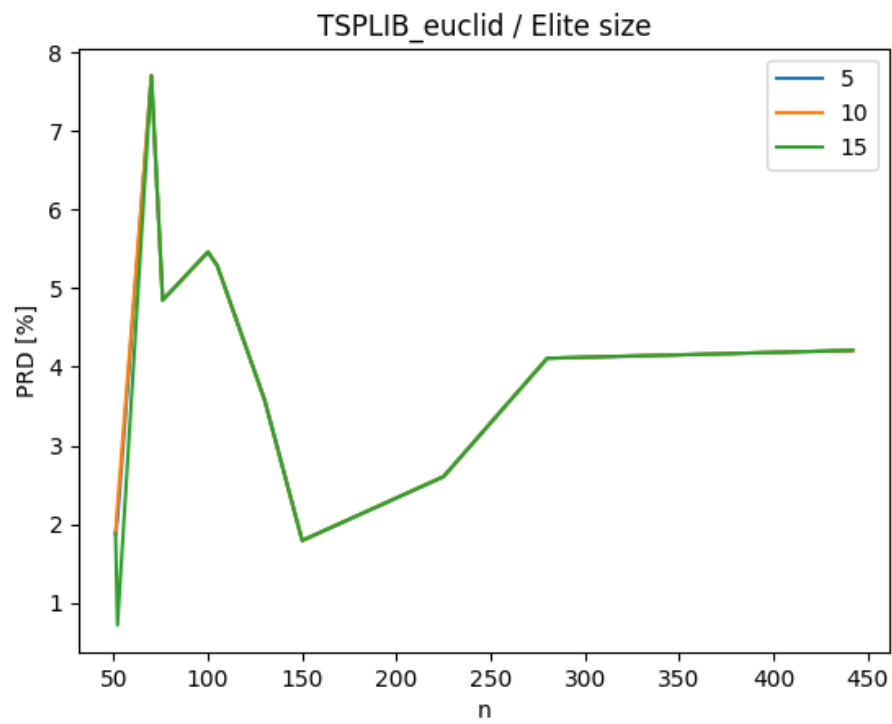


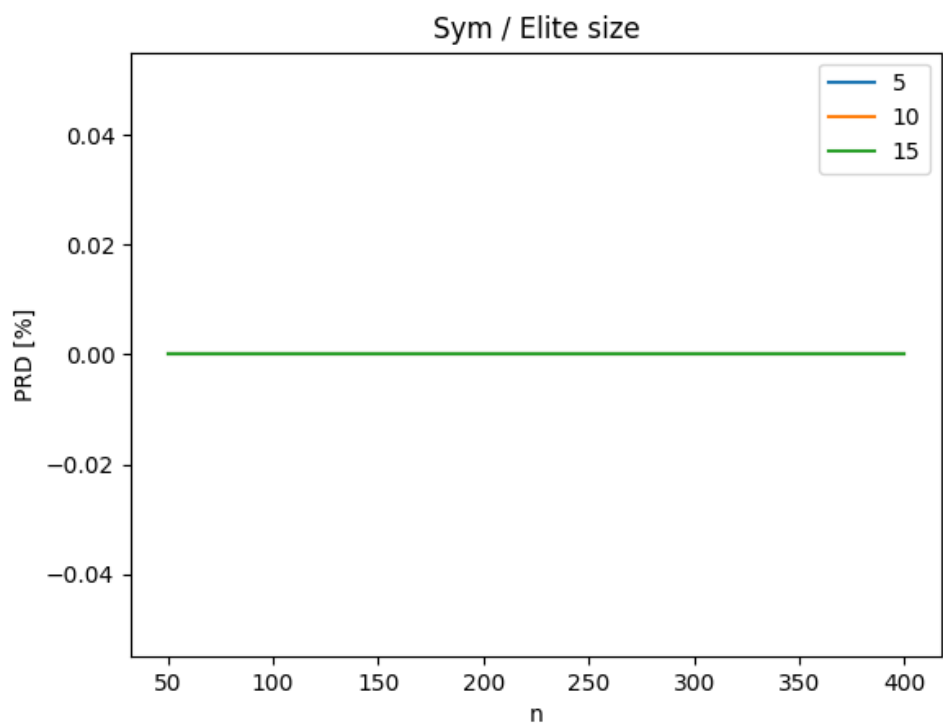
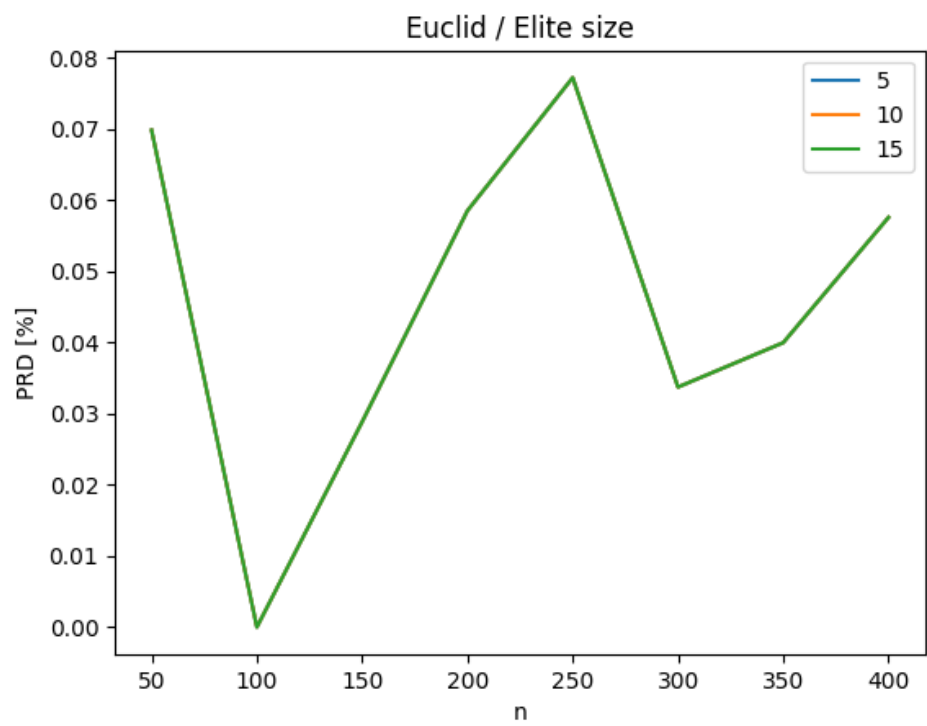




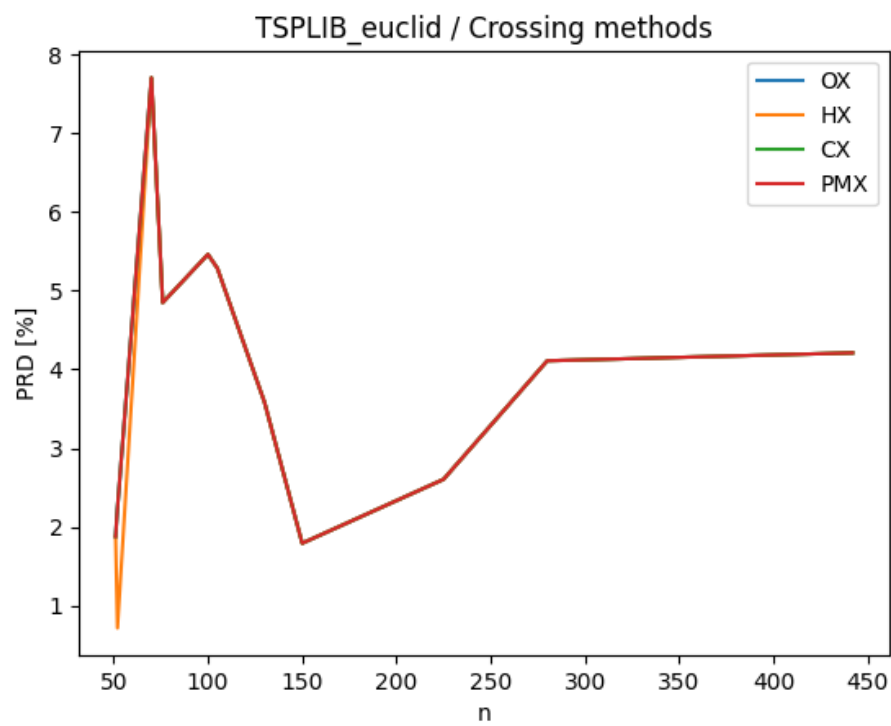
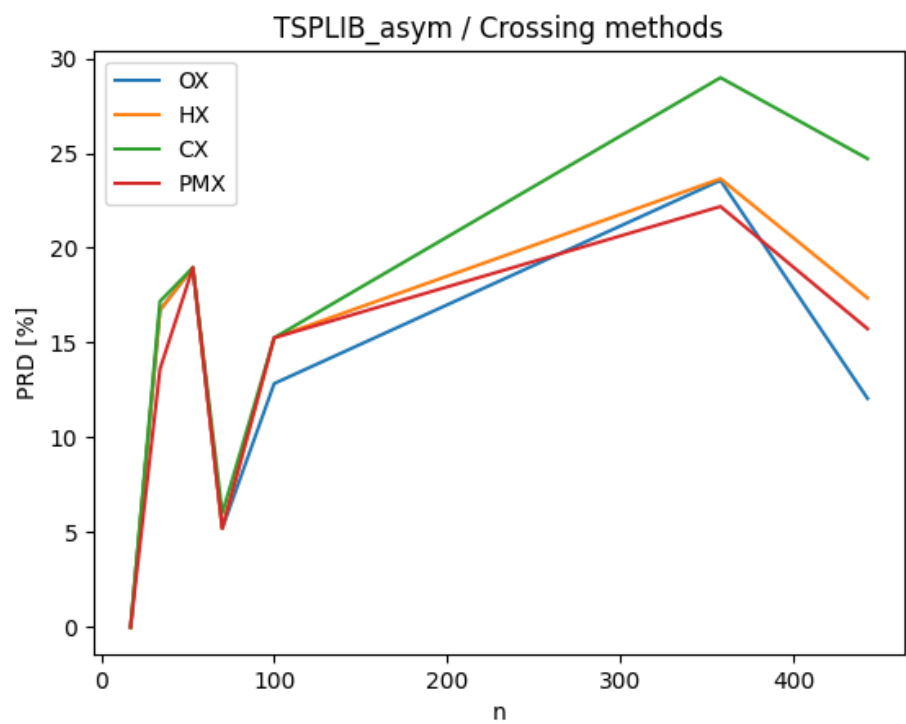
#### 4.4 Wielkość elity



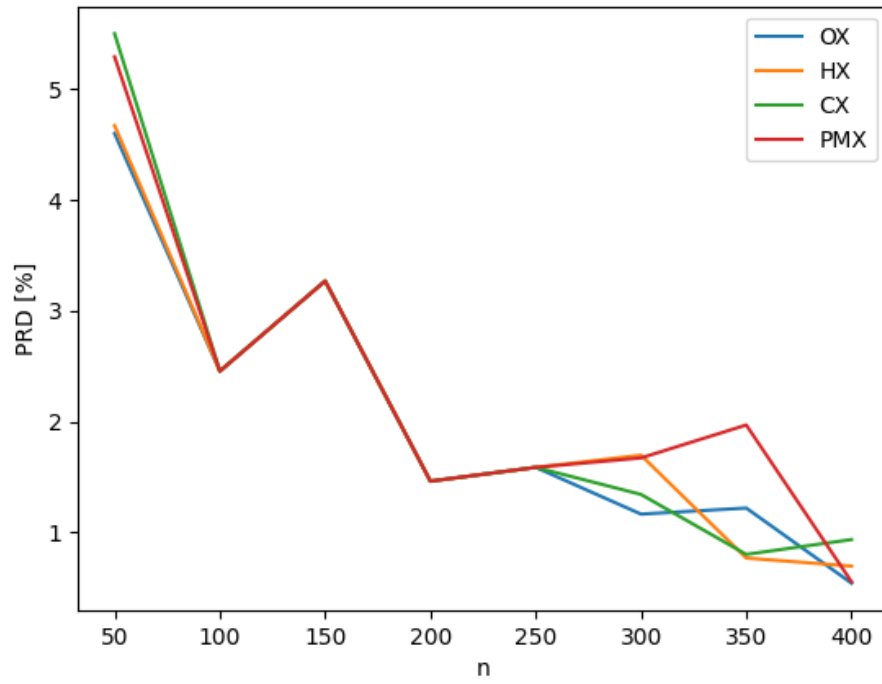




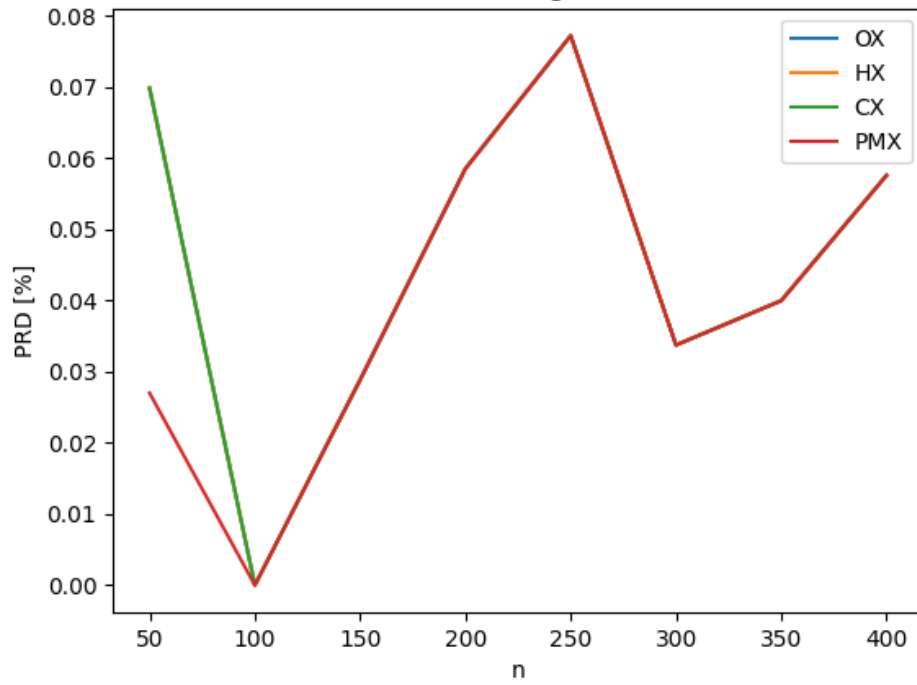
4.5 Krzyżowanie

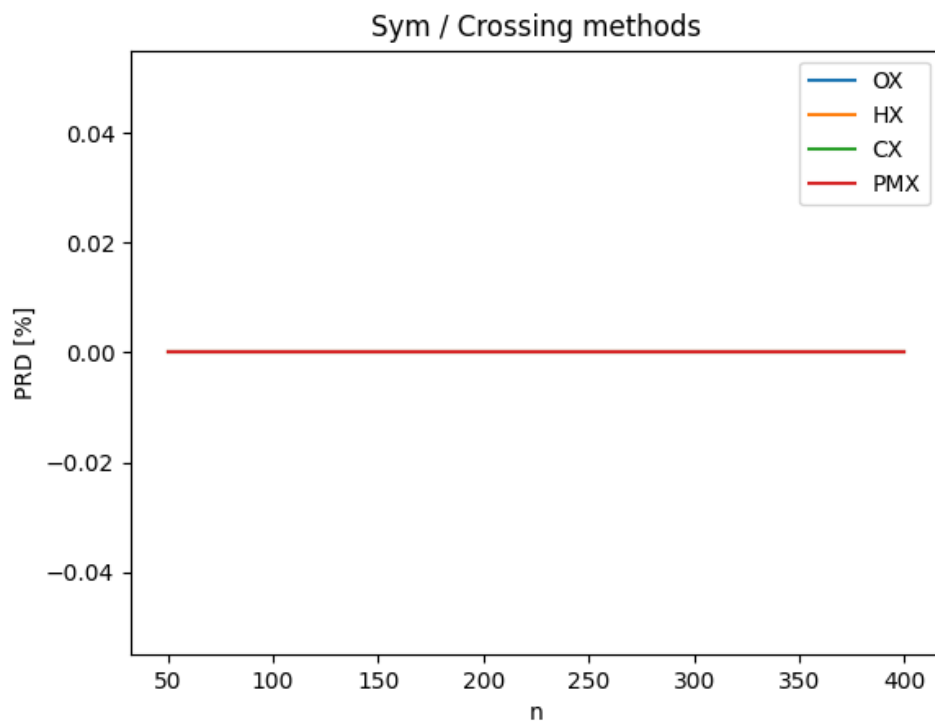


Asym / Crossing methods

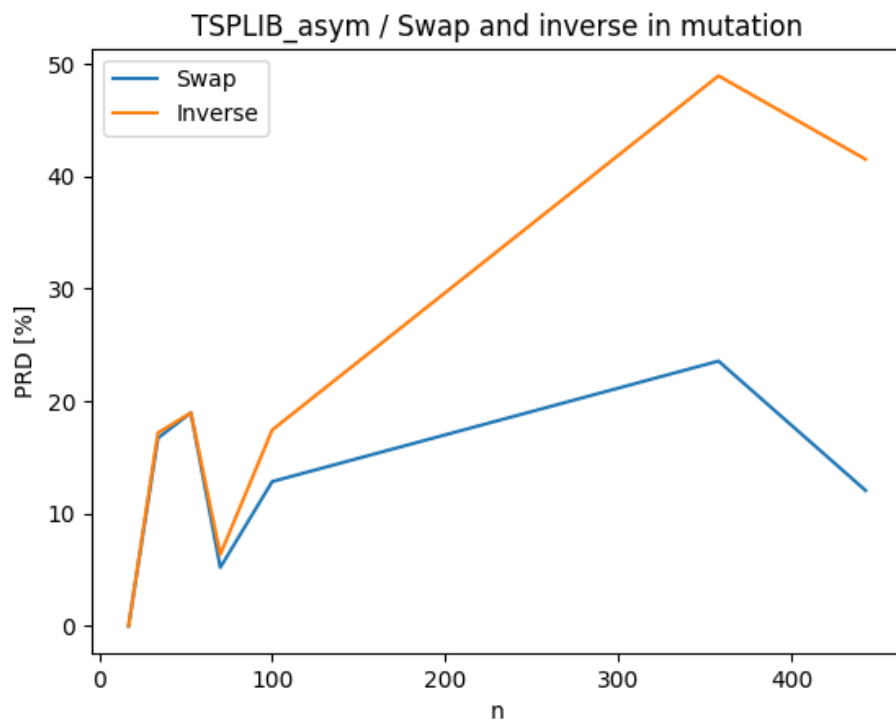


Euclid / Crossing methods

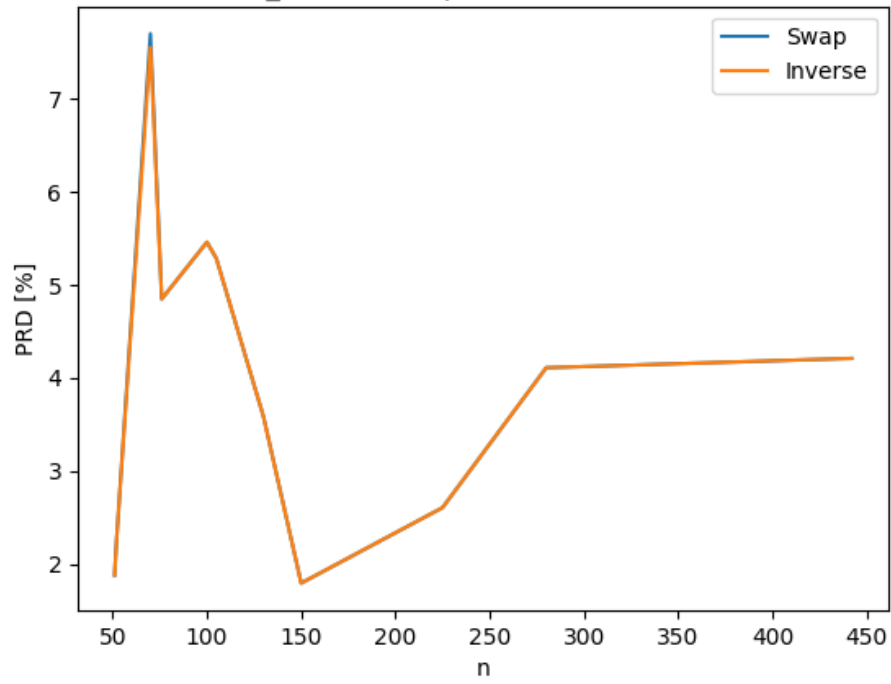




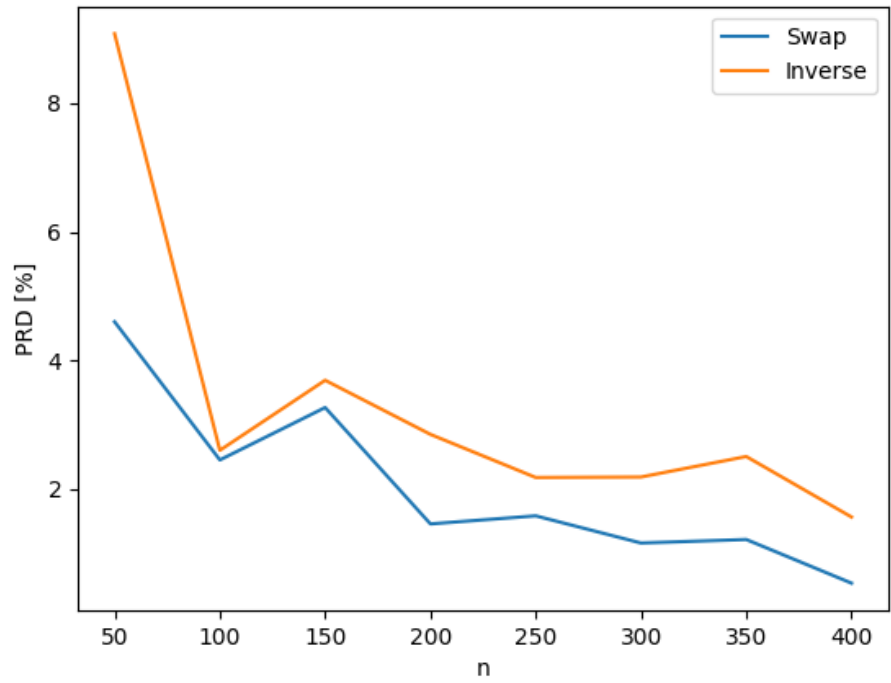
#### 4.6 Swap i inverse

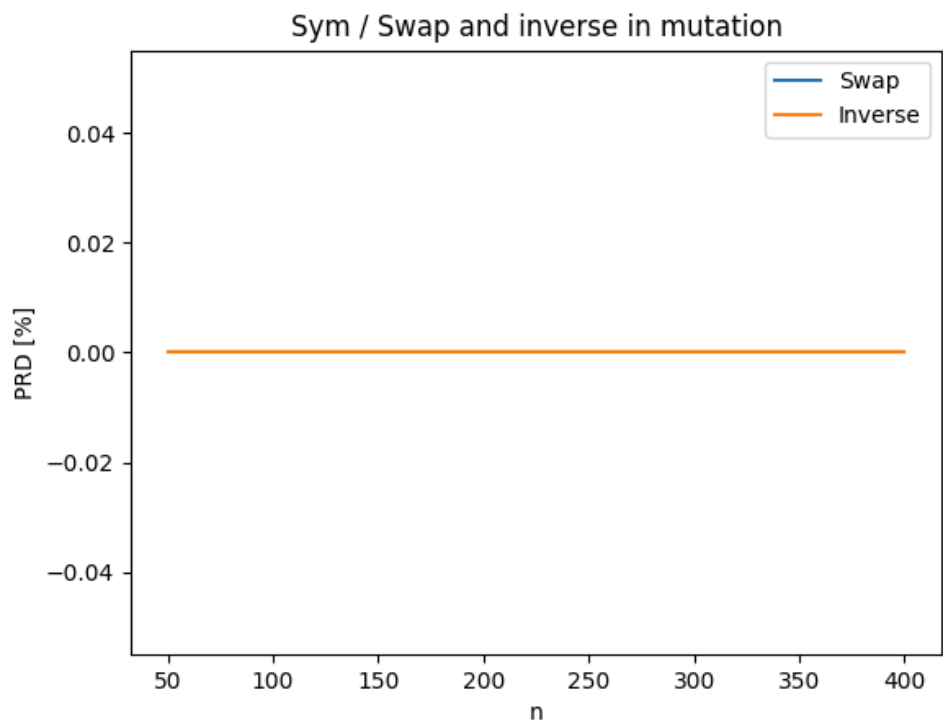


TSPLIB\_euclid / Swap and inverse in mutation



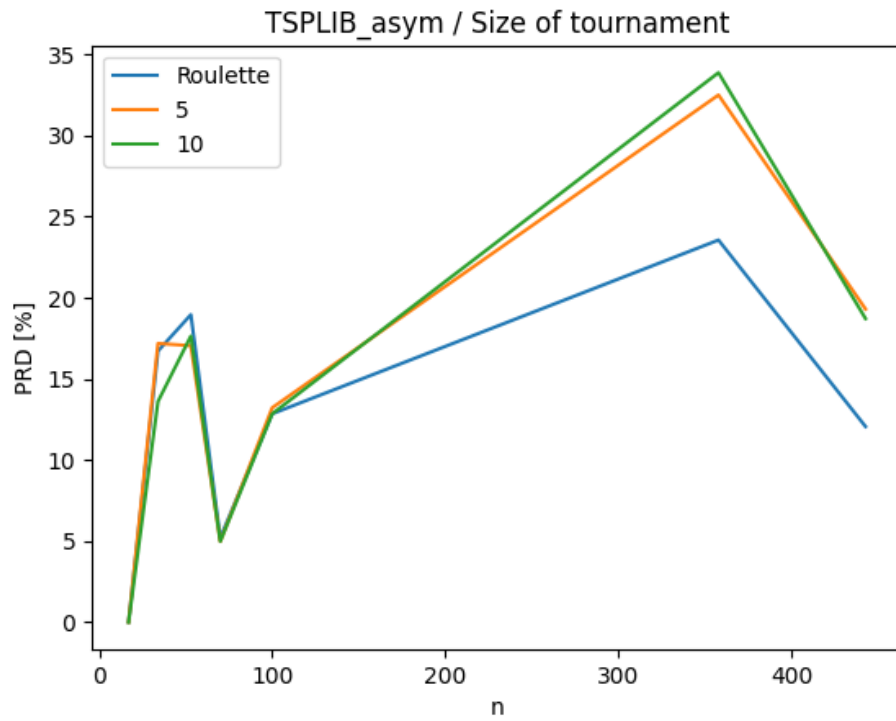
Asym / Swap and inverse in mutation



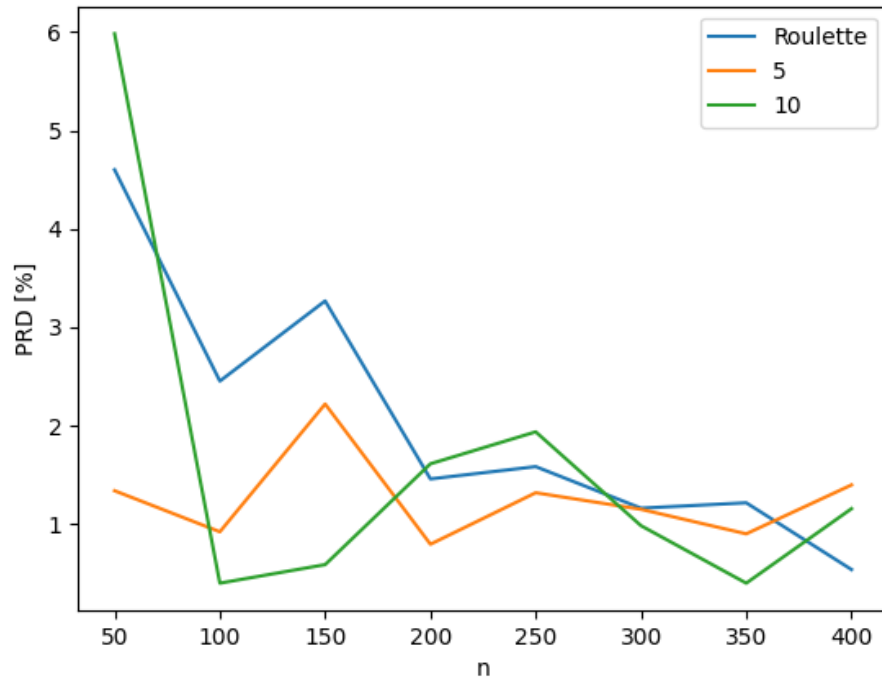




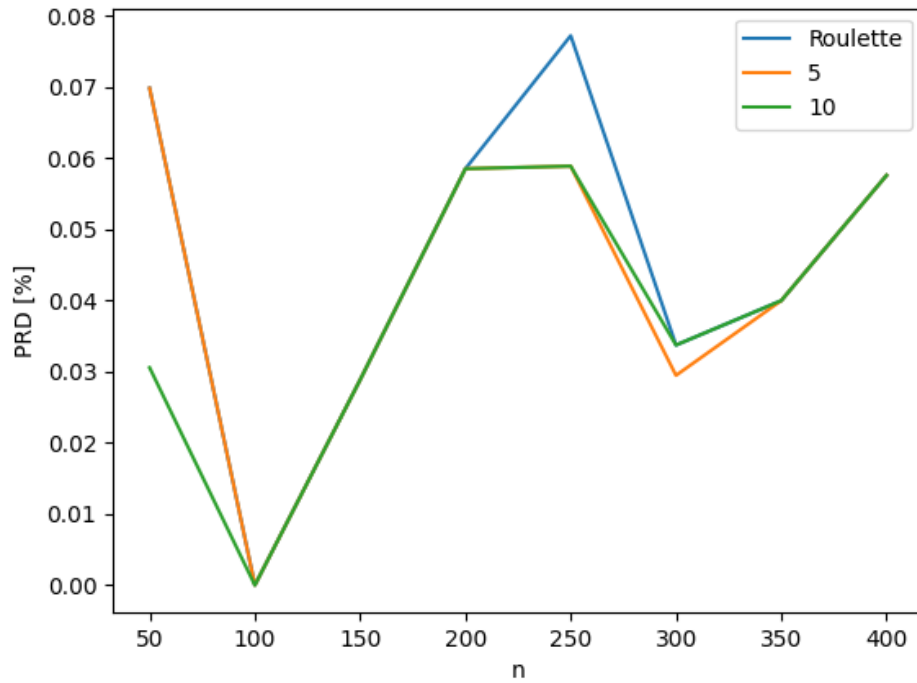
## 4.7 Turniej

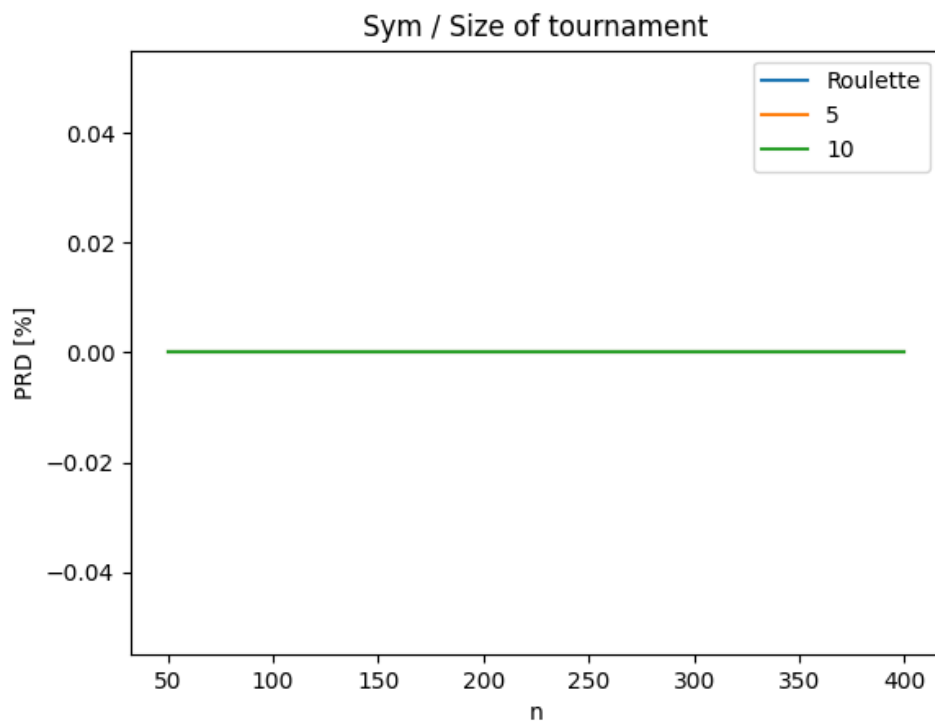


Asym / Size of tournament

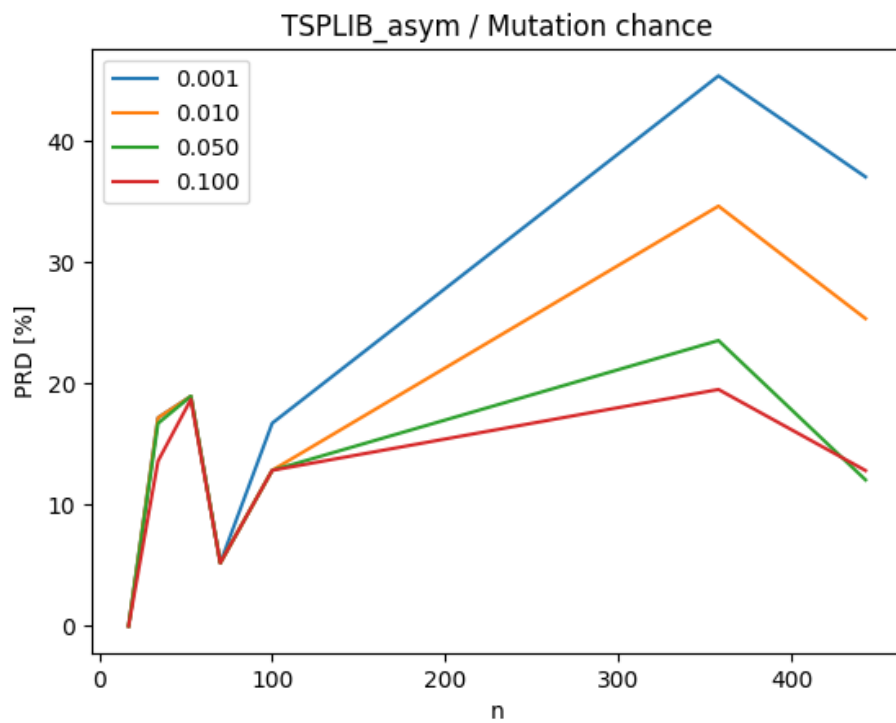


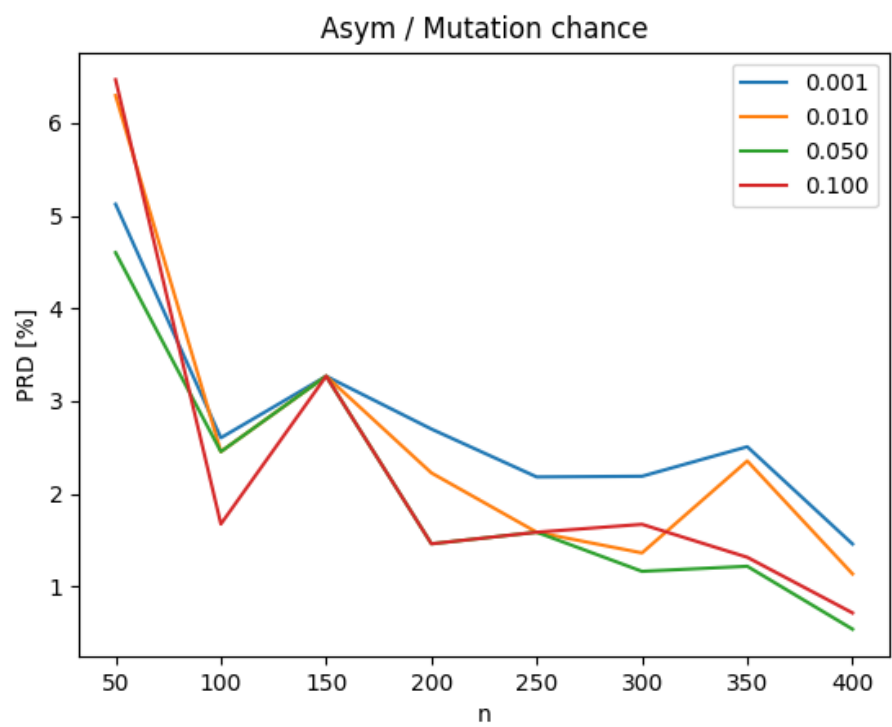
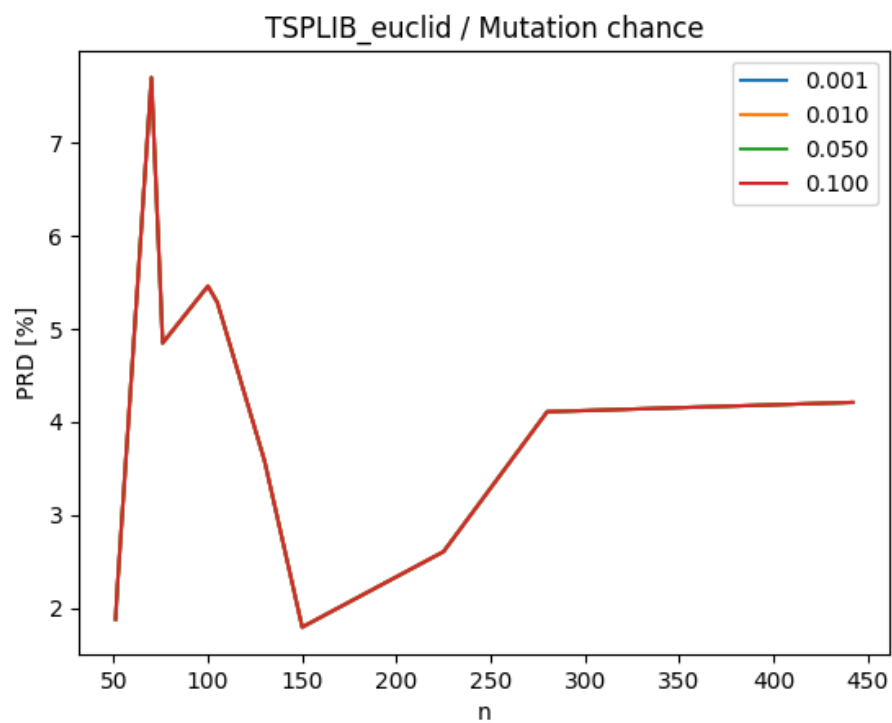
Euclid / Size of tournament

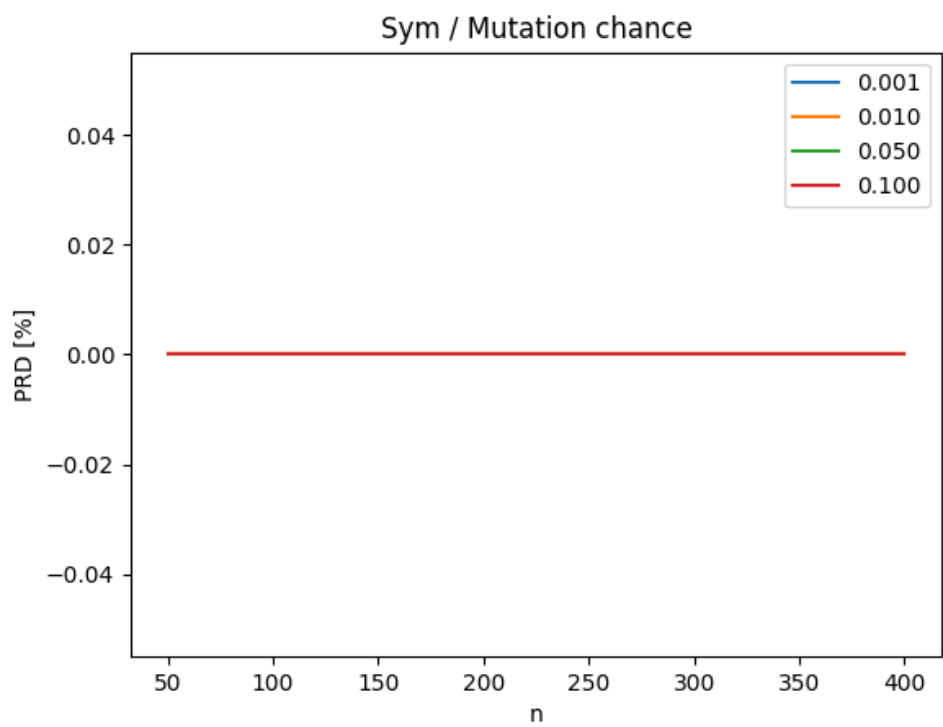
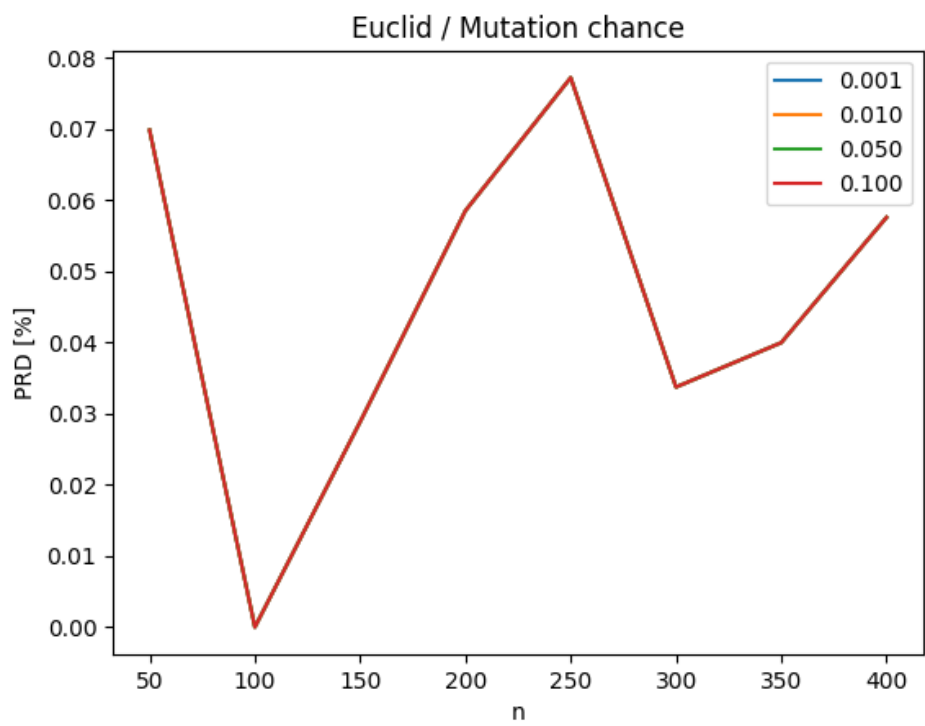




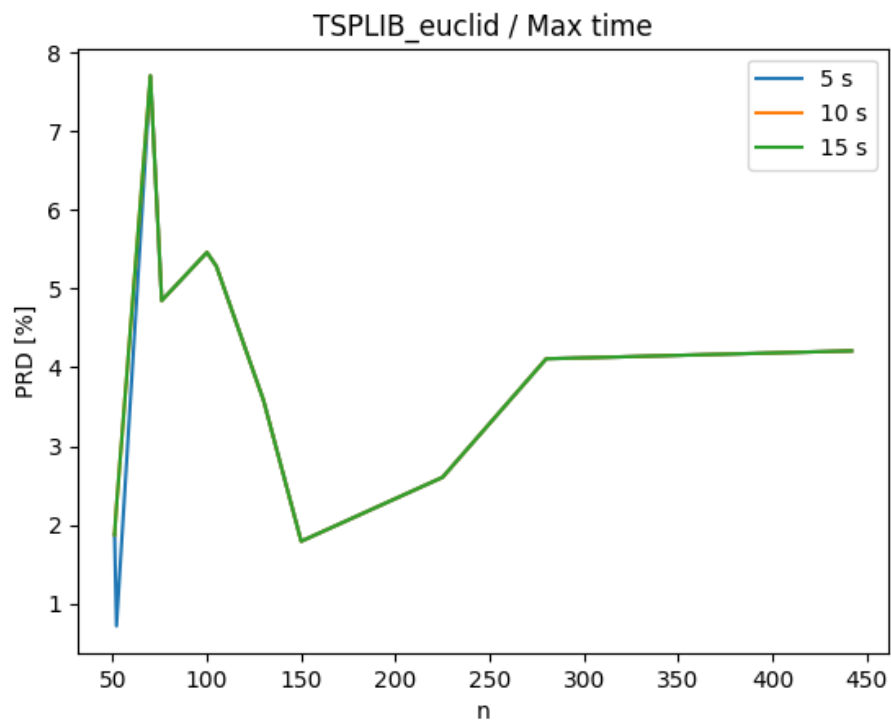
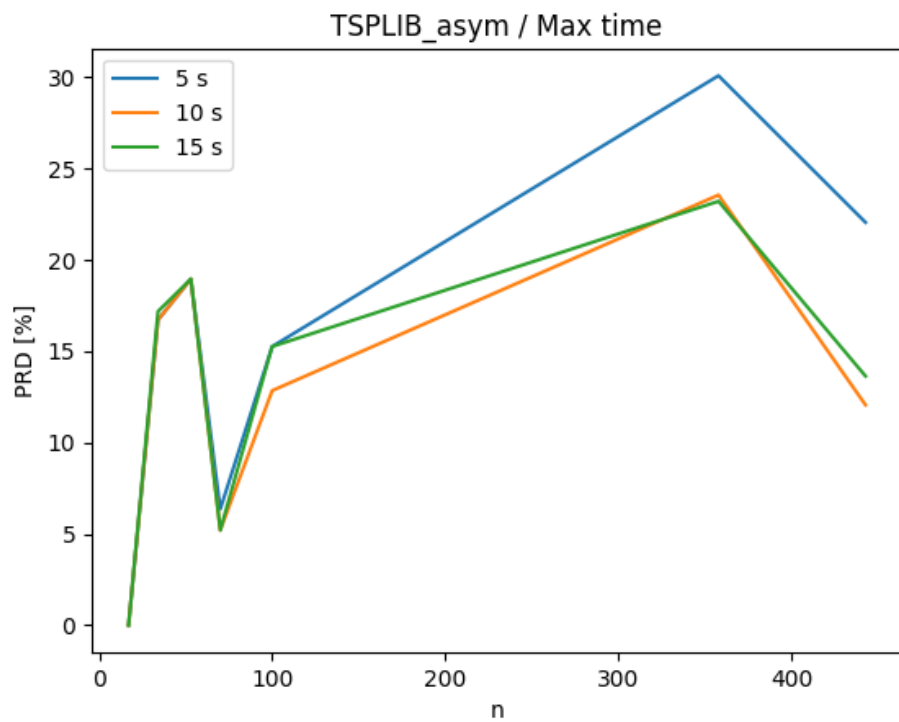
#### 4.8 Szansa mutacji

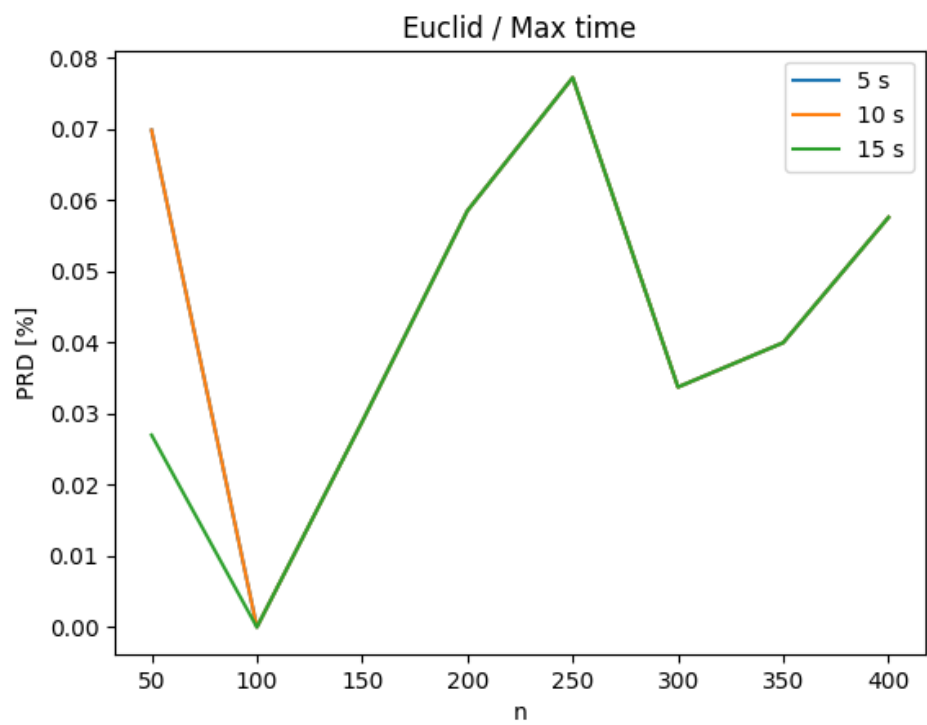
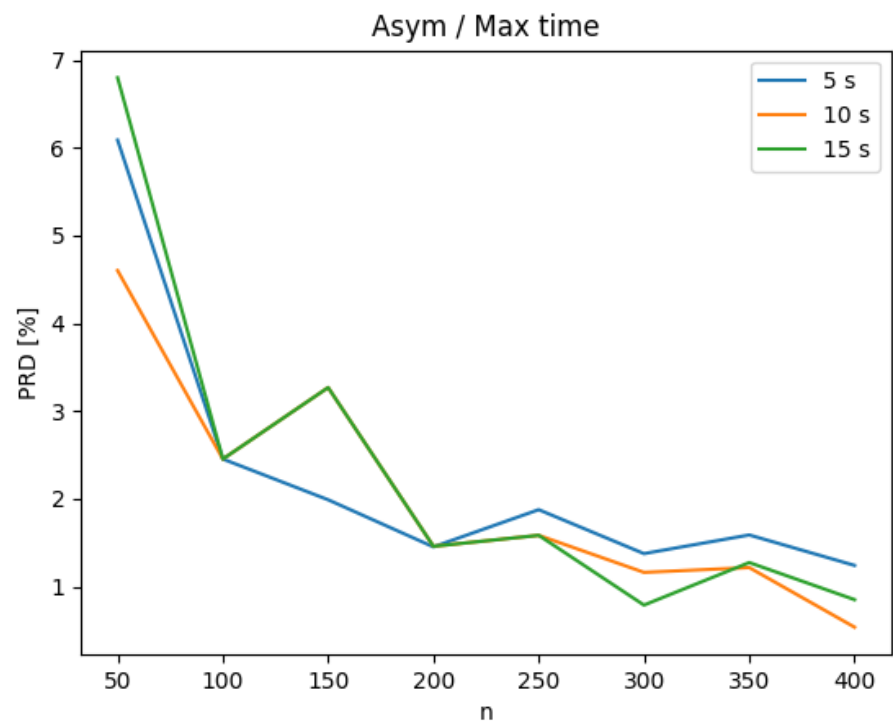


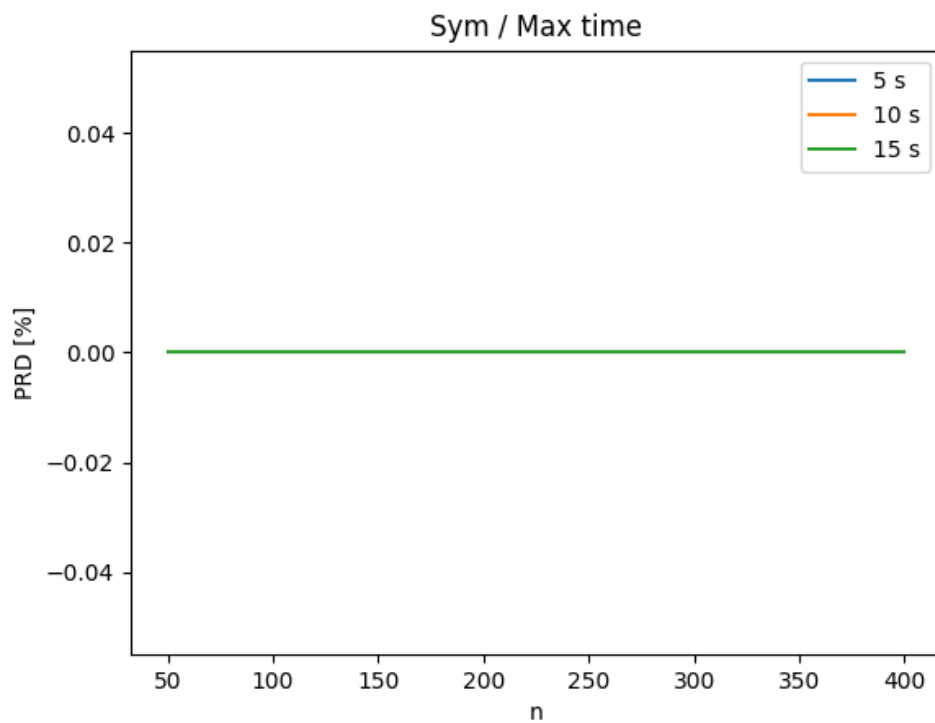




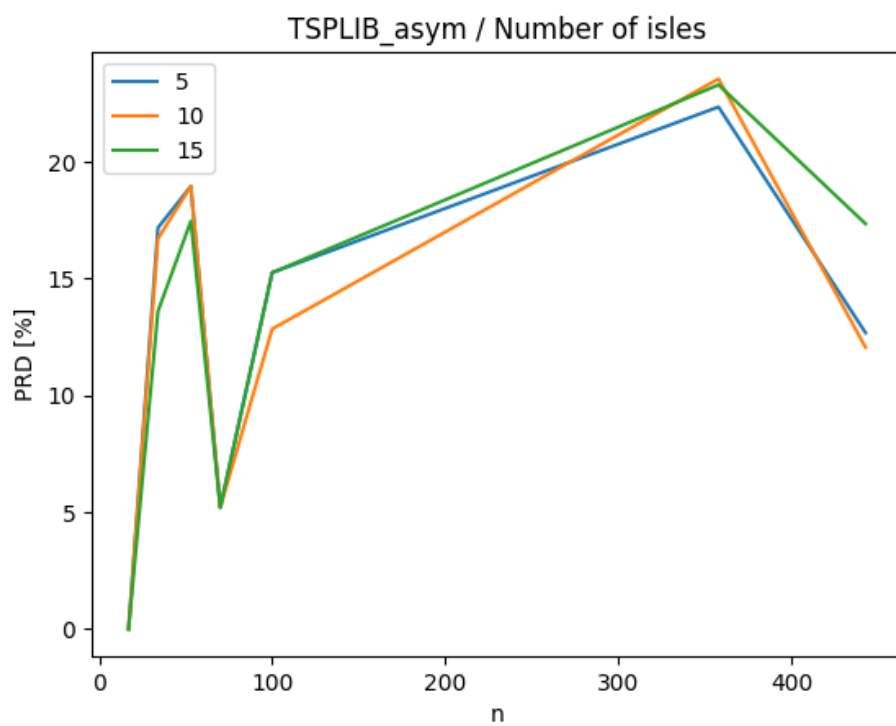
## 4.9 Maksymalny czas



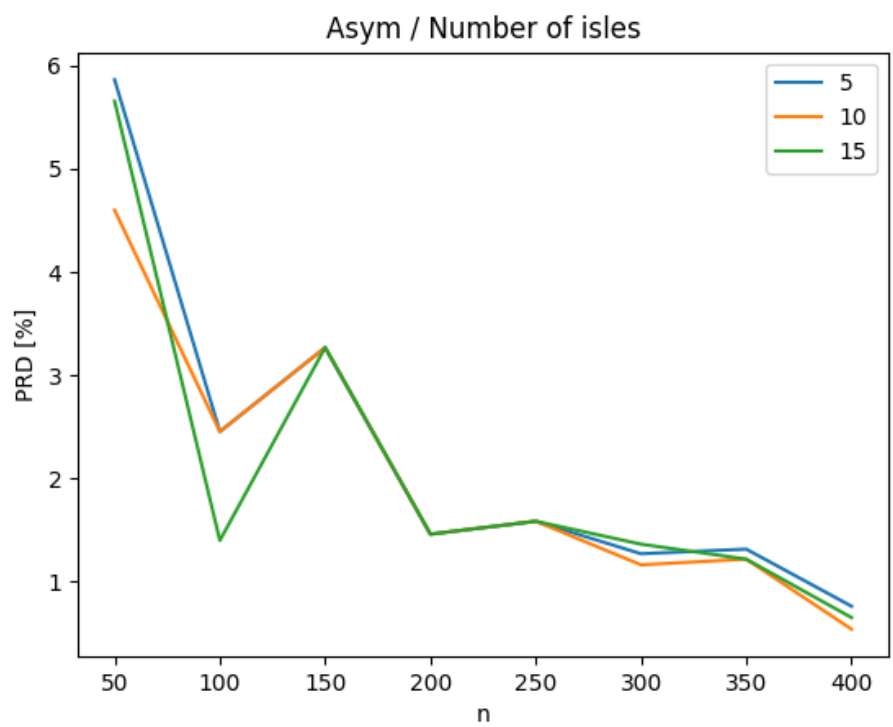
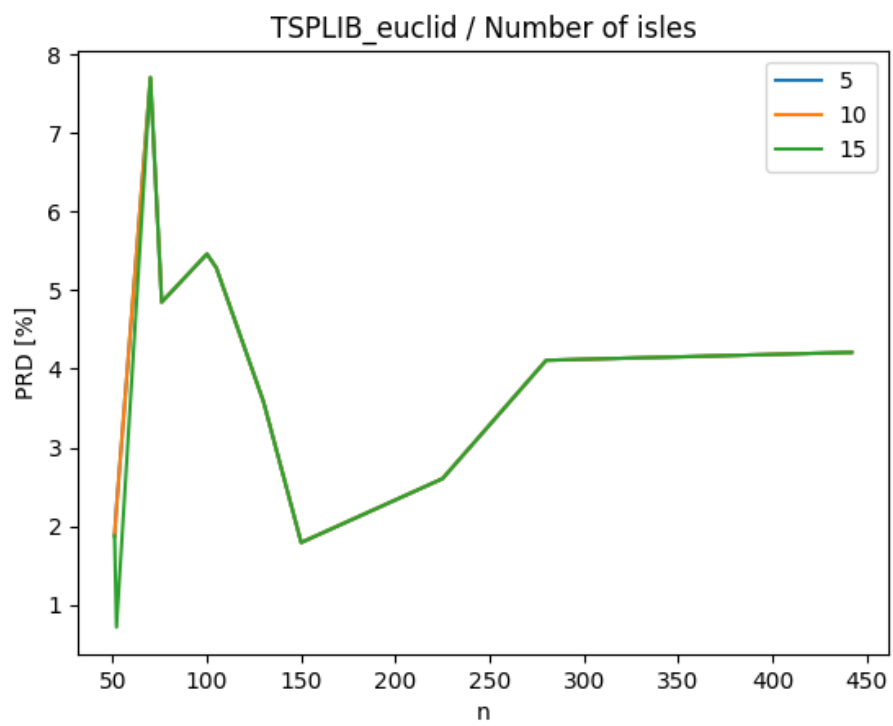


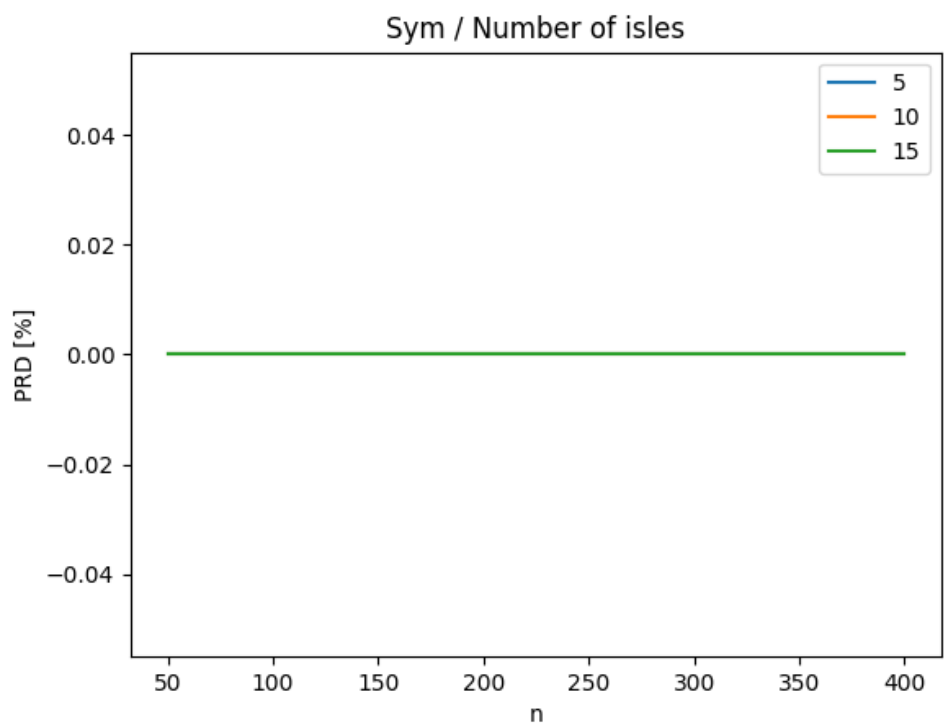
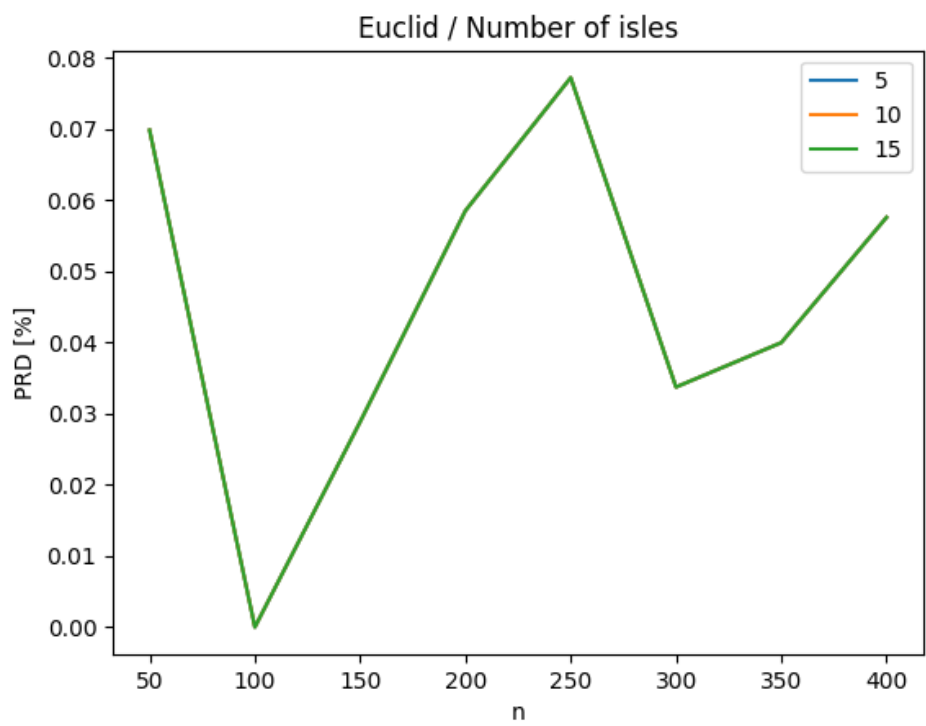


#### 4.10 Liczba wosp

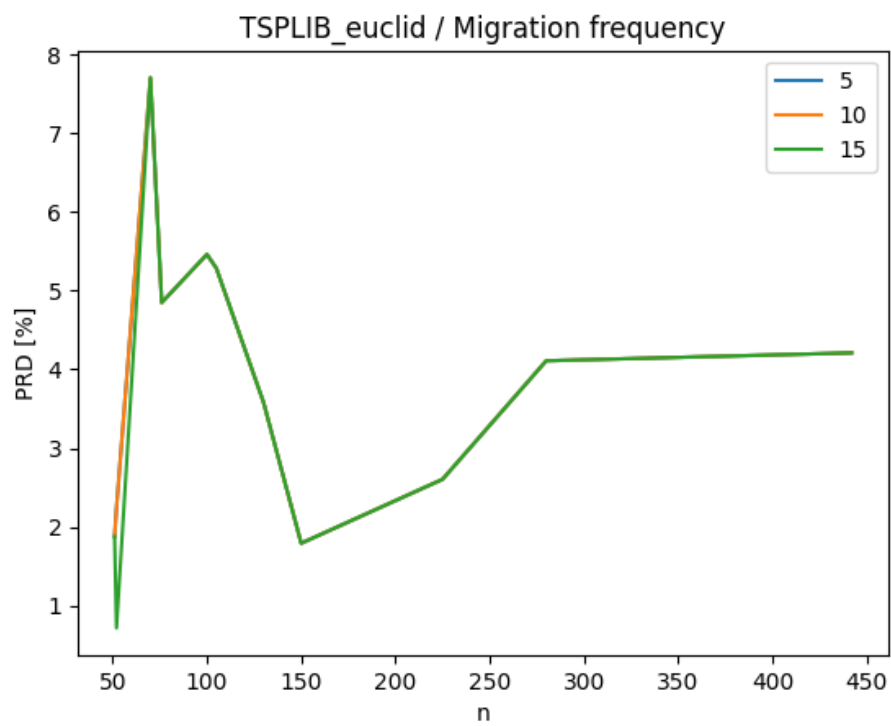
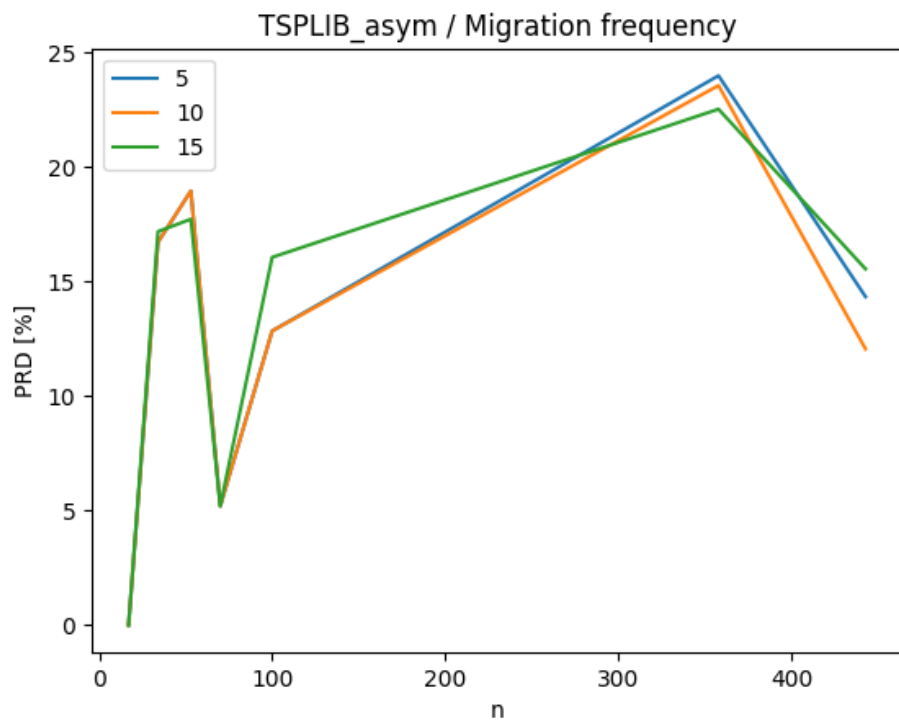


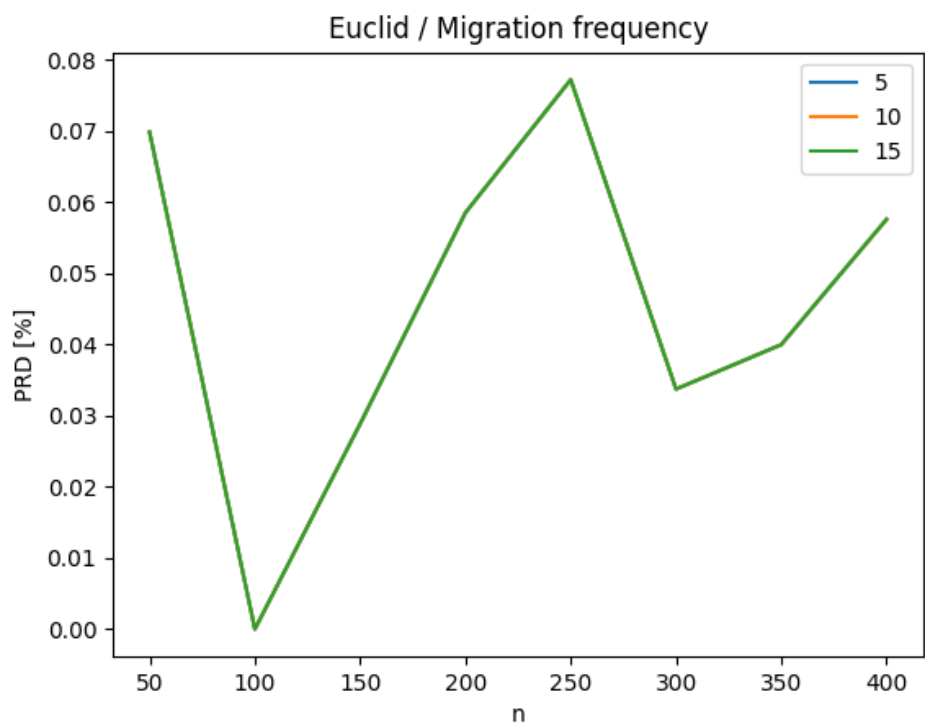
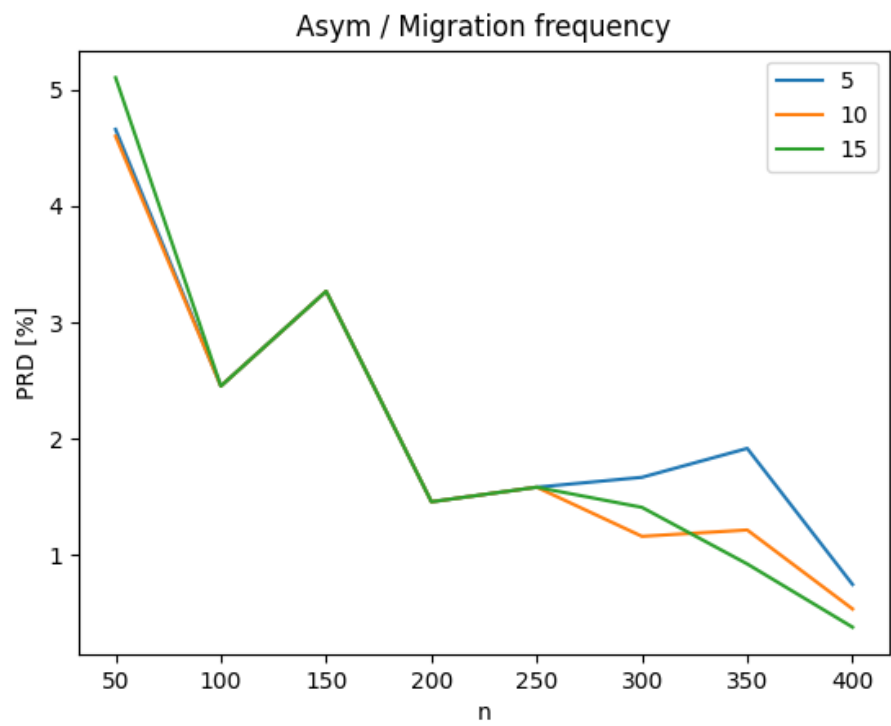


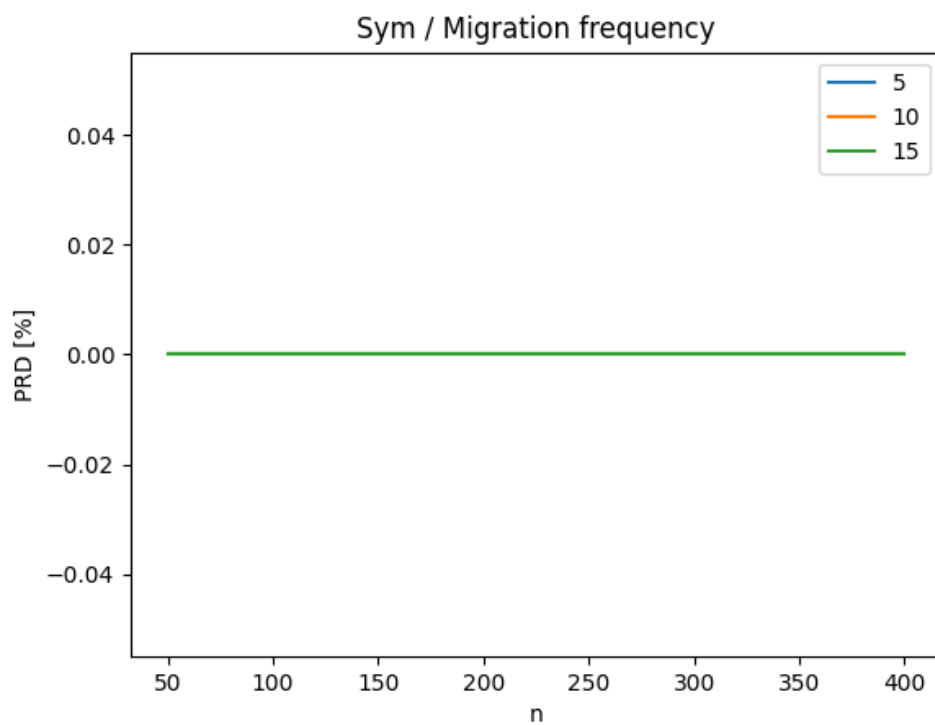




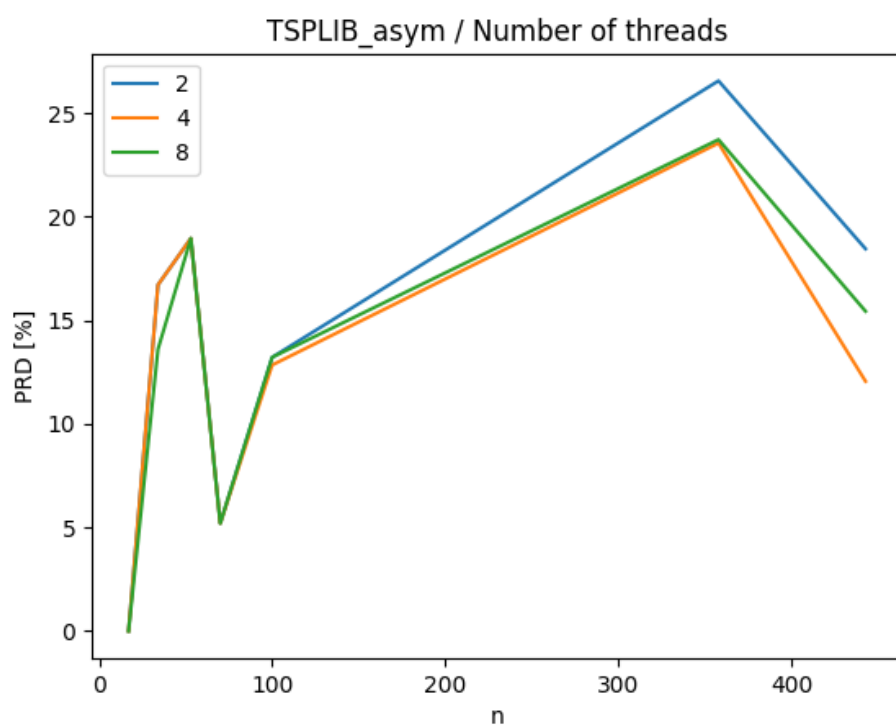
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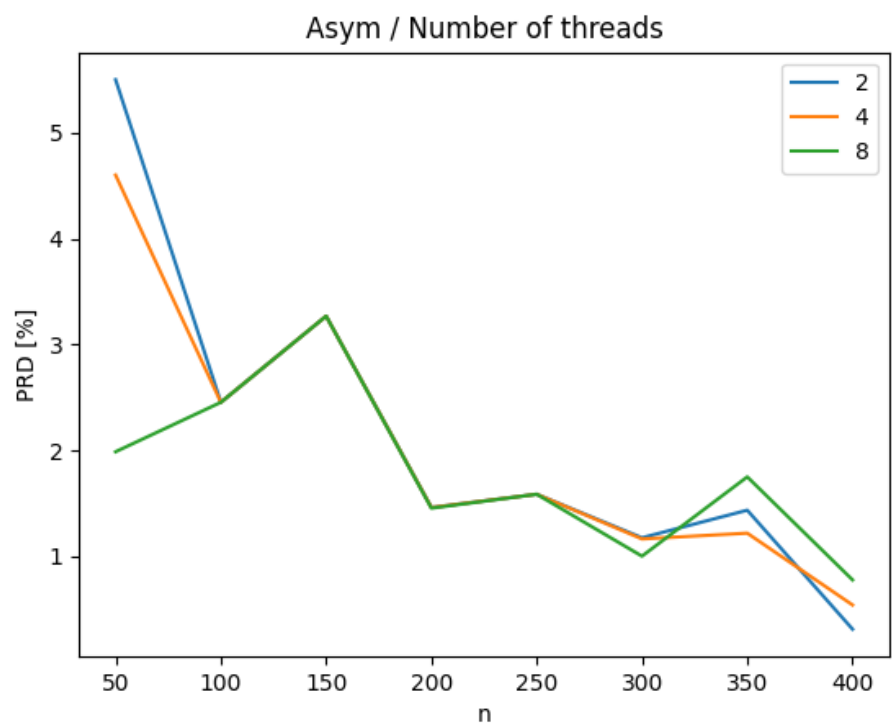
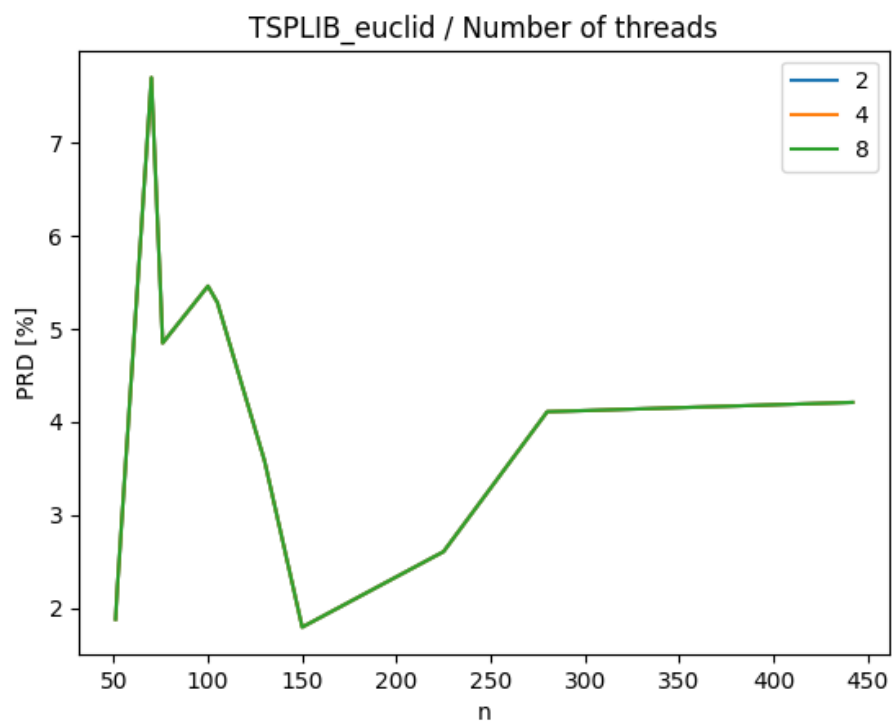


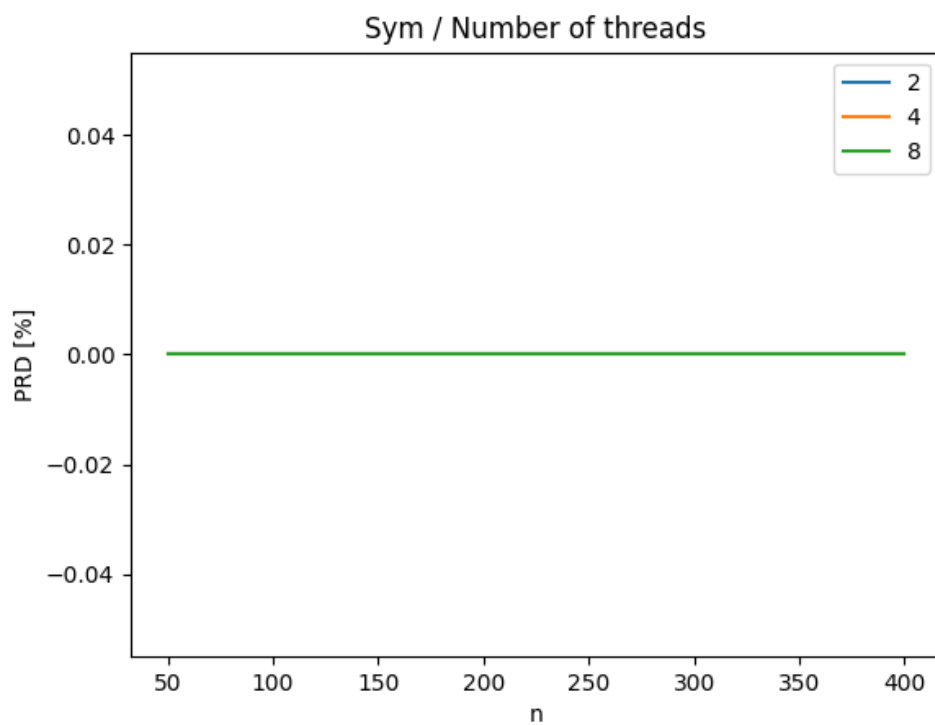
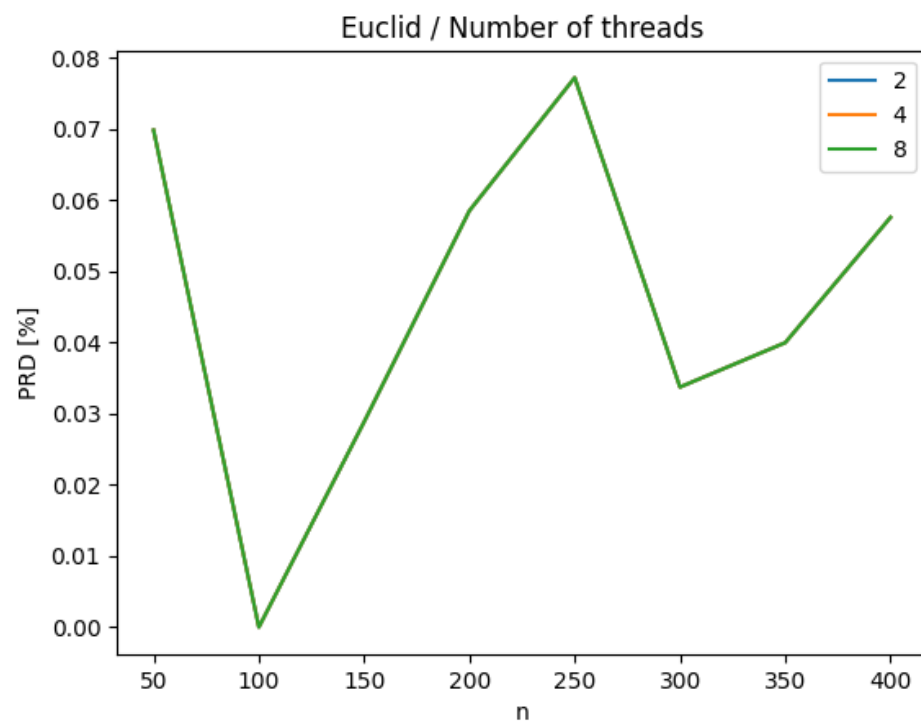




#### 4.12 Liczba wątków







## 5 Obserwacje i wnioski

- Obserwacje i wnioski - do zrobienia