Sensor Models: Beam Based & End Point

Provided to: Eng. Mohamed Shawky

Provided by:

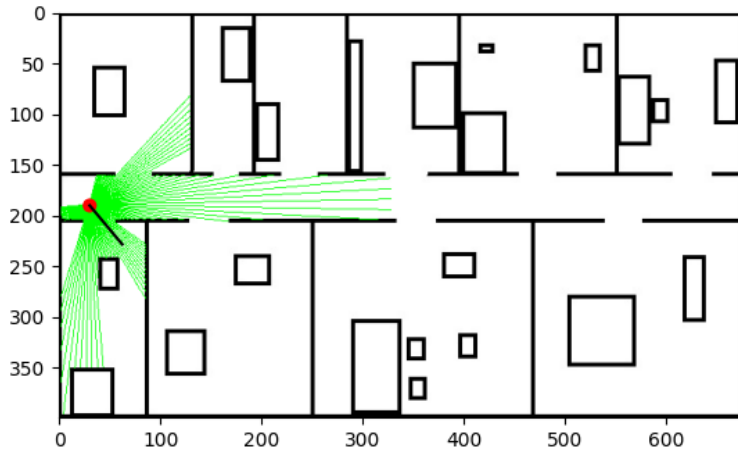| Heba Ashraf Raslan | heba.elmaaboud00@eng-st.cu.edu.eg | 9203667 |

Problem 1:

- For x=350, y=190, theta=90
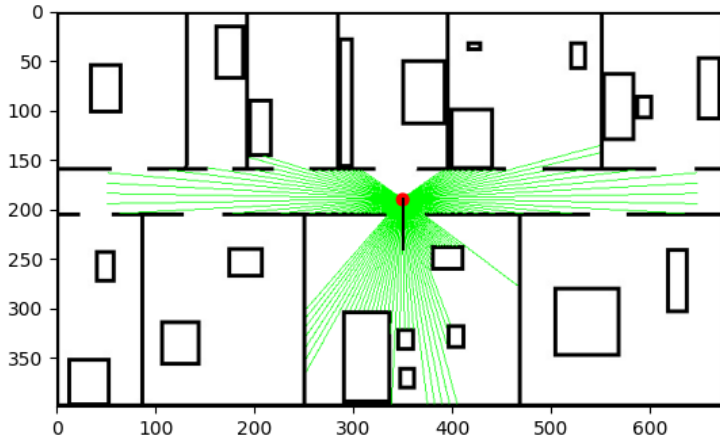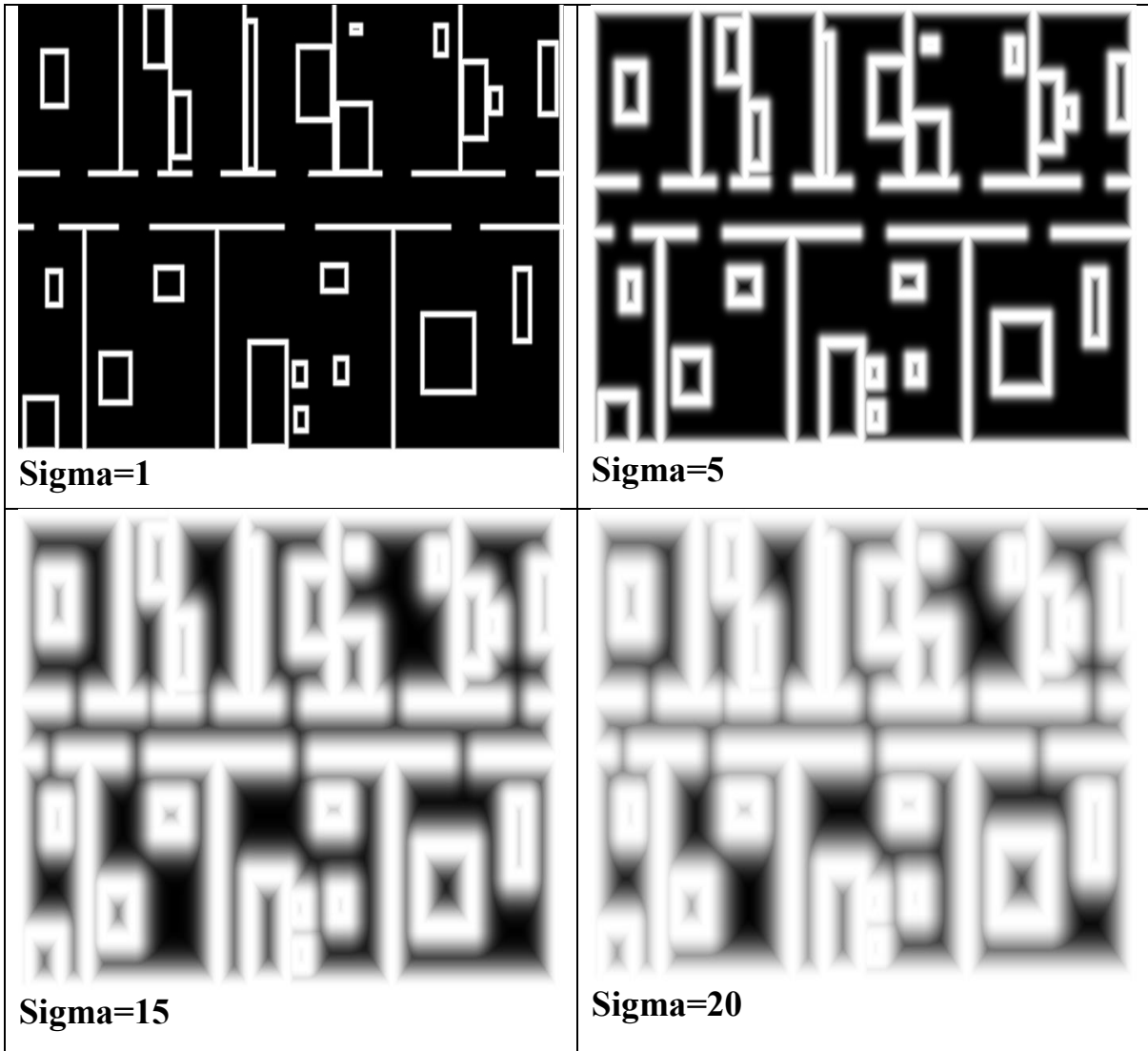

- For x=30, y=190, theta=50

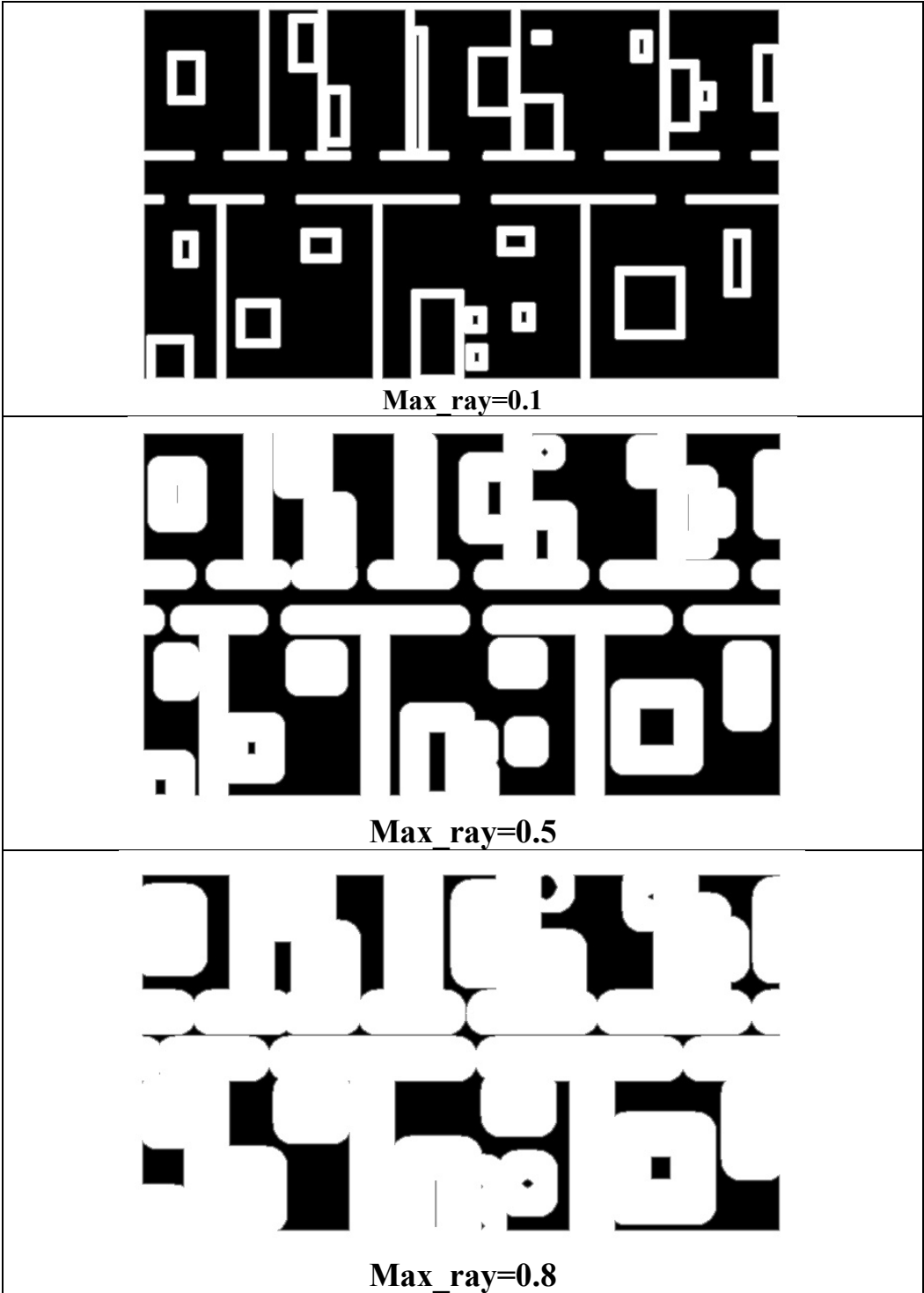The measurements (end point and distance for each angle) are saved in measurements.txt file.

Problem 2:

1- Likelihood field at different sigmas:

Sigma=1

Sigma=5

Sigma=15

Sigma=20

2- Probability map at different sigmas& max_ray

Sigma=1

Max_ray=0.1

Max_ray=0.5

Max_ray=0.8

Max ray=1

Max_ray=2

Max_ray=3

Sigma =5

Max_ray=0.1

Max_ray=0.5

Max_ray=0.8

Max_ray=1
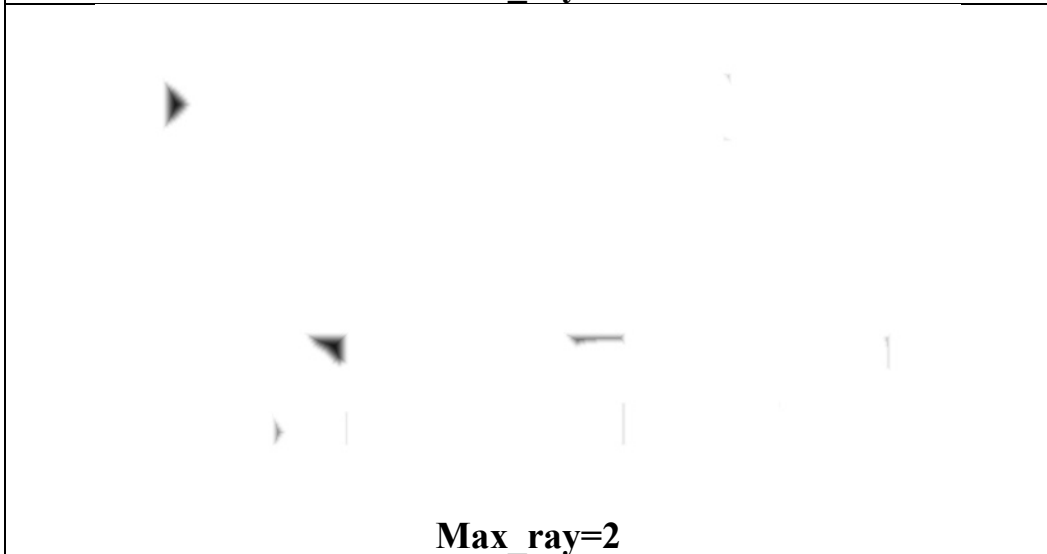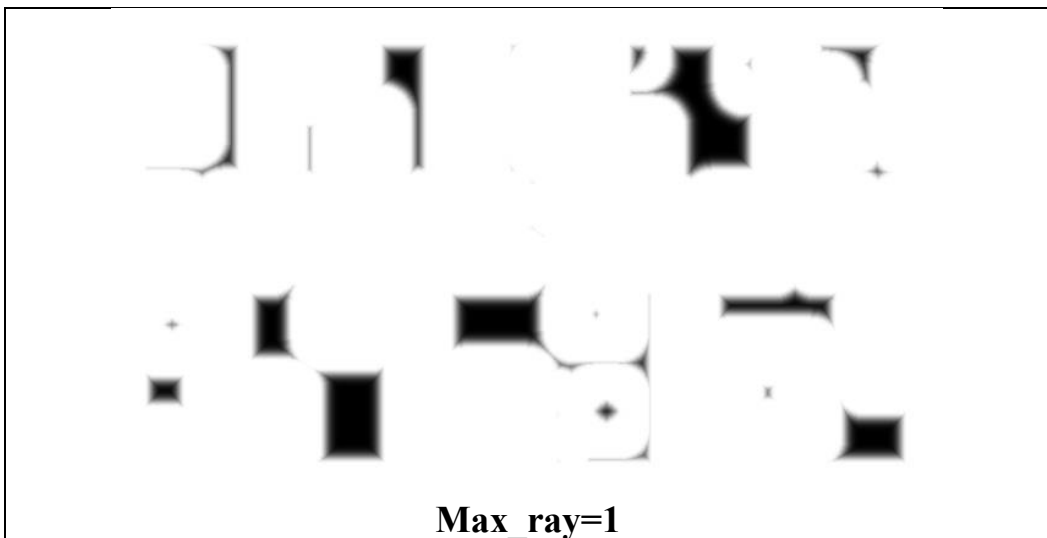
Max_ray=2

Max_ray=3

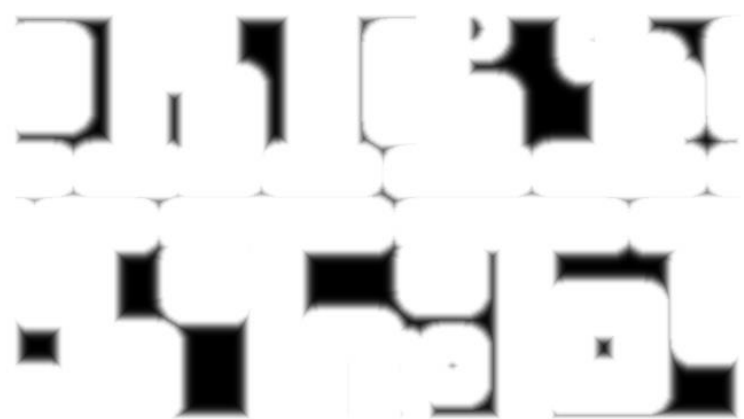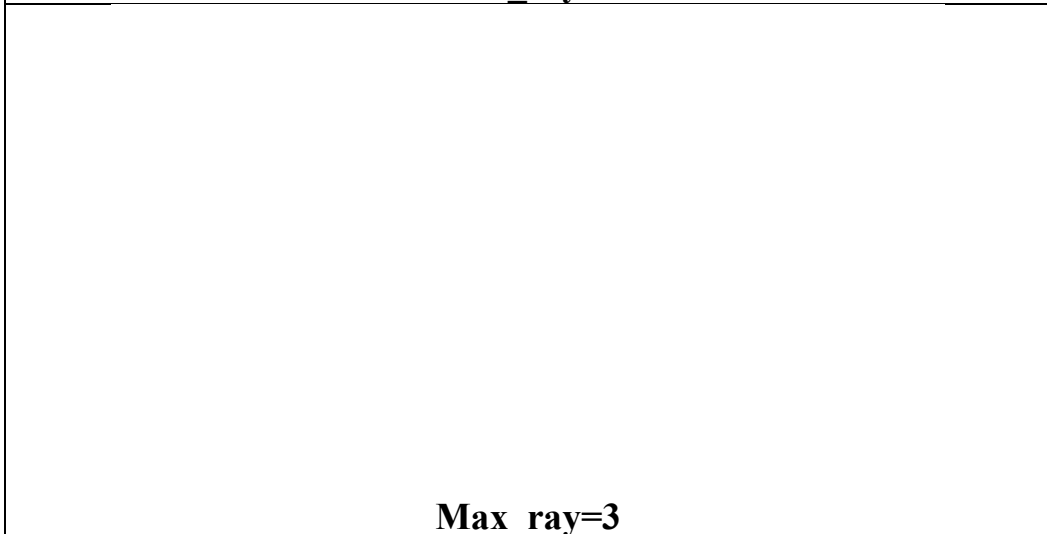# Sigma=15

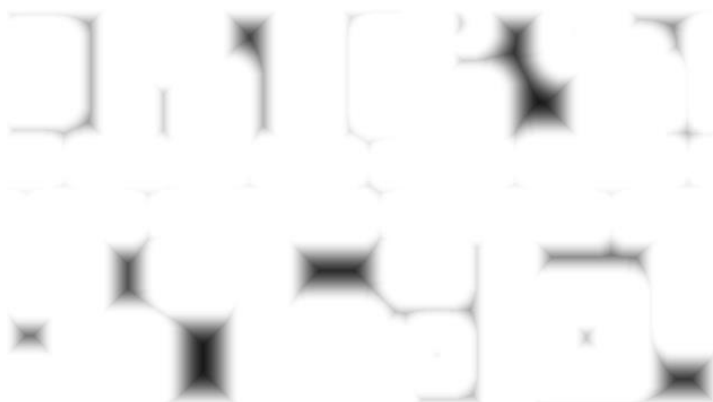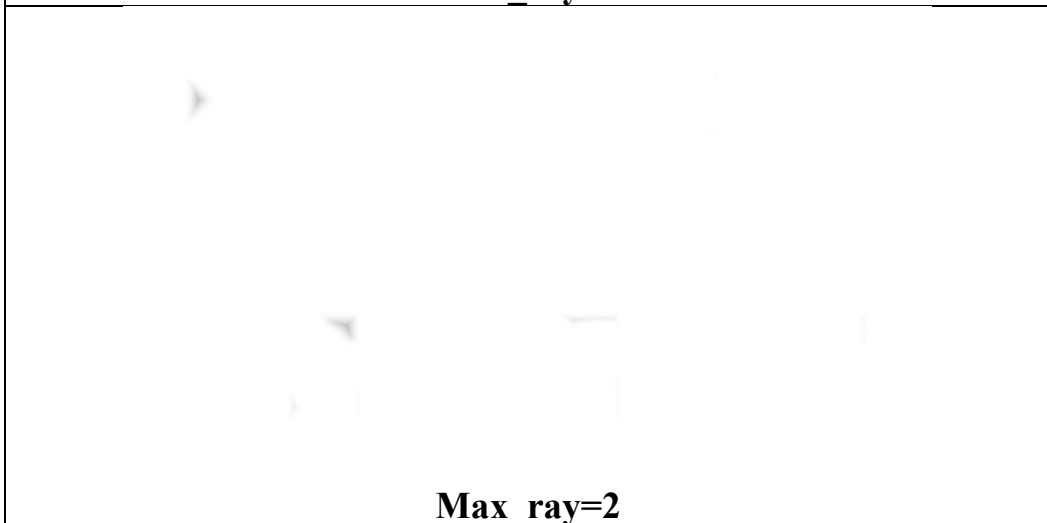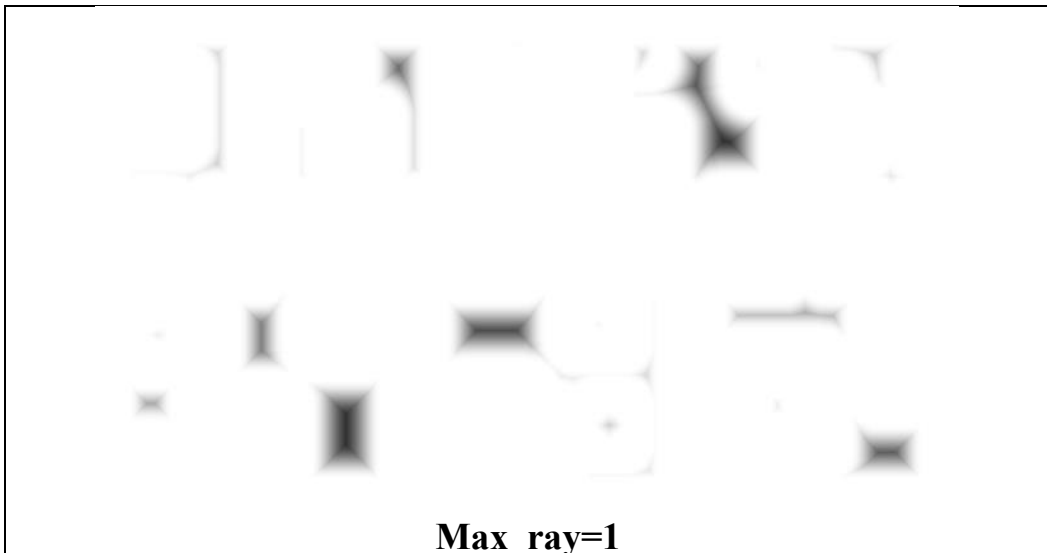**Max_ray=0.1**

Max_ray=0.5

Max_ray=0.8

Max_ray=1
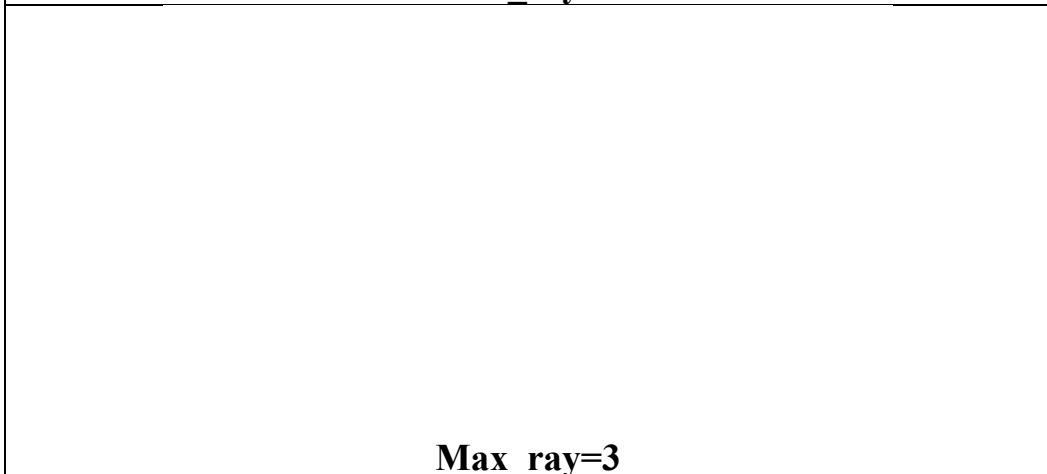
Max_ray=2

Max_ray=3

Sigma=20

Max_ray=0.1

Max_ray=0.5

Max_ray=0.8

Max_ray=1

Max_ray=2

Max_ray=3