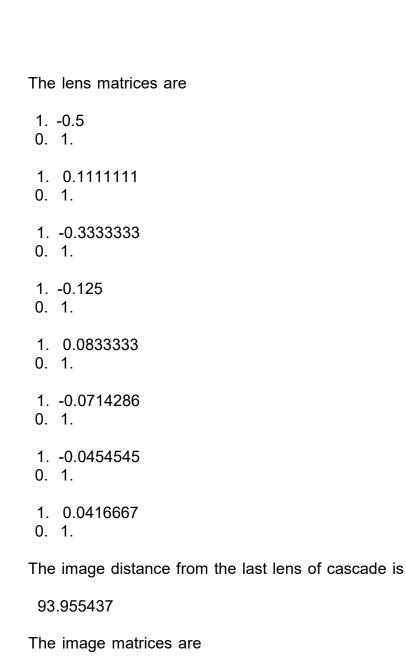
Console

Enter	the	number	of	sequential	elements	(lenses)	8 (

Enter the focal lengths of sequential elements in order> 2					
> -9					
> 3					
> 8					
> -12					
> 14					
> 22					
> -24					
Enter the input angle(in radian)0.1					
Enter the input height0.4					
Enter the object distance12					
Enter the distance between lenses in order> 2					
> 8					
> 5					
> 21					
> 4					
> 6					
> 12					



1. 0. 2.4 1.

1. 0. 0.4186047 1.

1. 0. 4.964467 1.

0. -0.0356915 1.

0. -7.6410781 1.

1.

1.

```
1. 0.
-69.088803 1.
```

The object distance matrices are

12. 1.

-0.4 1.

7.5813953 1.

0.035533 1.

21.035692 1.

11.641078 1.

1. 0.

75.088803 1.

1. 0.

-19.1168 1.

The composite matrix for whole cascade of lenses

Angular Magnification by cascade of lenses is

-1.6543615

Spatial Magnification by cascade of lenses is

-0.6044628

alpha_out is

-0.2422812

x_out is

-0.2417851