

```
fP[f1_, f2_, d_] :=  $\frac{f1 f2}{f1 + f2 - d} \left(1 - \frac{d}{f1}\right)$ 
(*Focal plane wrt the second lens. Positive to the right of the lens*)
```

```
yim[f1_, f2_, d_,  $\theta$ _] :=  $\frac{f1 f2}{f1 + f2 - d} \theta$  (*Image height*)
```

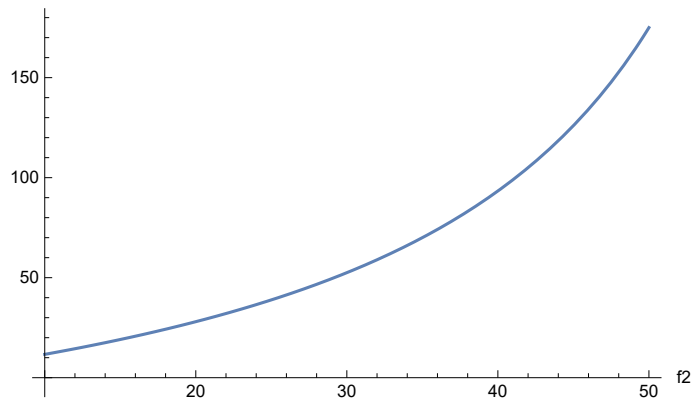
```
f1 = 60;
```

```
d = 130; (*Inter-lens distance*)
```

```
 $\theta$  = 2 Degree; (*Incident angle*)
```

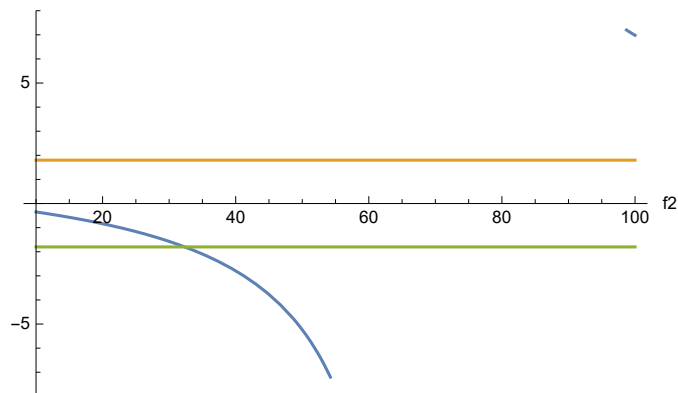
```
Plot[fP[f1, f2, d], {f2, 10, 50}, AxesLabel → {"f2", "Focal plane"}]
```

Focal plane



```
Plot[{yim[f1, f2, d,  $\theta$ ], 1.8, -1.8}, {f2, 10, 100}, AxesLabel → {"f2", "Image height"}]
```

Image height



```
f2 = 30;
```

```
1. fP[f1, f2, d]
```

```
1. yim[f1, f2, d,  $\theta$ ]
```

```
52.5
```

```
-1.5708
```