```
> restart;
  # Distance to the Moon :
> s[0]:=3.84*10^(8);
```

$$s_0 := 0.3840000000\ 10^{9}$$

```
  # Focal length :
> f:=50*10^(-3);
```

$$f := \frac{1}{20}$$

```
  # Moon's diameter :
> y[0]:=0.273*1.27*10^(7);
```

$$y_0 := 0.3467100000\ 10^{7}$$

```
  # Use Gaussian Lens Equation (24.6) to find s_i :
> s[i]:=(1/f-1/s[0])^(-1);
```

$$s_i := 0.05000000000$$

```
  # Find the magnification using Equation (24.9) M_T :
> M[T]:=-s[i]/s[0];
```

$$M_T := -0.1302083333\ 10^{-9}$$

```
  # Use Equation (24.8) to find y_i :
> y[i]:=M[T]*y[0];
```

$$y_i := -0.0004514453124$$

```
>
```