

Language

Defining functions

MATLAB/Octave

```
f = inline('sin(x/3) - cos(x/5)')
```

Python

R

```
f <- function(x) sin(x/3) - cos(x/5)
```

$$f(x) = \sin\left(\frac{x}{3}\right) - \cos\left(\frac{x}{5}\right)$$

Plot a function for given range

```
ezplot(f,[0,40])  
fplot('sin(x/3) - cos(x/5)',[0,40])  
Octave: % no ezplot
```

```
x = arange(0,40,.5)  
y = sin(x/3) - cos(x/5)  
plot(x,y, 'o')
```

```
plot(f, xlim=c(0,40), type='p')
```

