

Matlab notes 150 for homework #1 and 2

We can find limits of a function this way. Be sure use symbolic variables with the syms command when you want to also use the limit command.

```
syms f(x)
f(x)=cos(x);
limit(f(x),x,pi)
```

```
ans = -1
```

To execute the code, use ctrl-enter or push the Run button.

We can find one sided limits this way; below is a limit approaching from the left.

```
sol=limit(f(x),x,47,'left')
```

```
sol = cos(47)
```

To approximate your solution to four digits, use the vpa command.

```
vpa(sol,4)
```

```
ans = -0.9923
```

You could have also nested the commands and did this all at once:

```
vpa(limit(f(x),x,47,'left'),4)
```

```
ans = -0.9923
```