```
% x' = x,  x(0) = 2,  for t in [0,5]

f = @(t,x) x
```

```
f = function_handle with value:
    @(t,x)x
```

```
x0 = 2
```

```
x0 =
     2
```

```
tspan = [0,5]
```

```
tspan = 1×2
     0     5
```

```
[t,x] = ode45(f,tspan,x0);
```

```
size(t)
```

```
ans = 1×2
    45     1
```

```
size(x)
```

```
ans = 1×2
    45     1
```

```
x(end)  % value at final time
```

```
ans =
   2.9683e+02
```

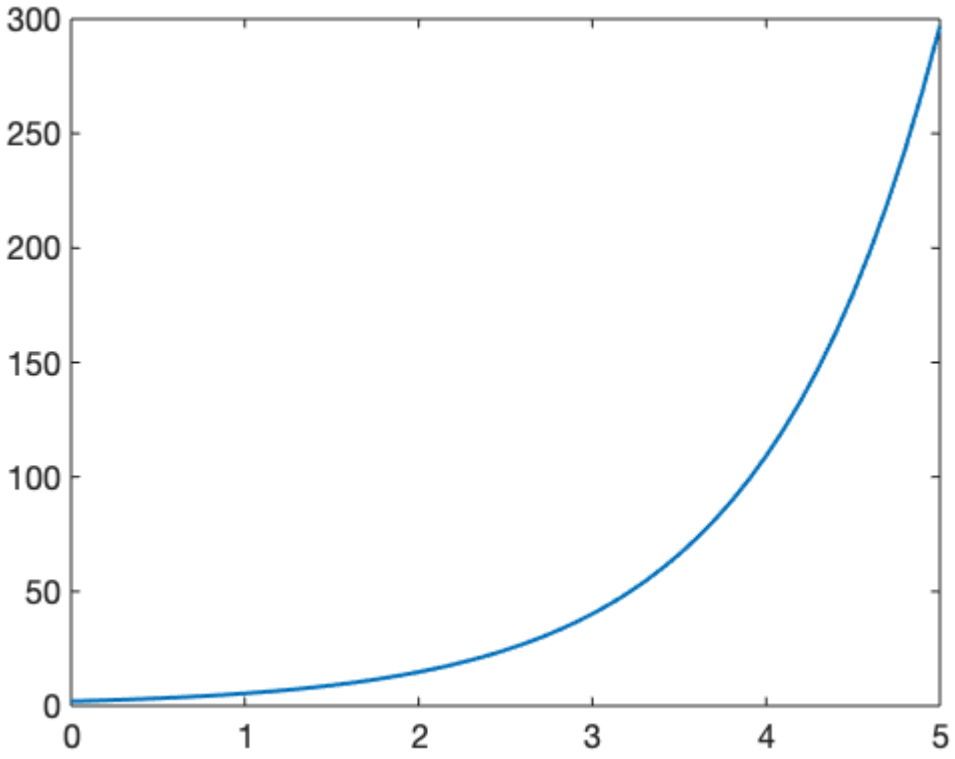
```
x(3)  % NOT x at t=3
```

```
ans =
   2.2114e+00
```

```
f = @(t,x) x;
x0 = 2;
tspan = 0:0.1:5;   % specify the output times
[t,x] = ode45(f,tspan,x0);
size(x)
```

```
ans = 1×2
    51     1
```

```
plot(t,x)
```




```
semilogy(t,x)
```