Modeling Yeast Growth

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Notebook to support Exercise 2.2.8, modeling yeast population growth.

The data, in time/population pairs.

```
times = [0:17];
pop = [9.6, 18.3, 29, 47.2, 71.1, 119.1, 174.6, 257.3, 350.7, 441, 513.3, 559.7, 594.8, 629.4,
```

A plot:

```
plt1 = plot(times,pop,'-r');
```

Given that u(0) = 9.6, the solution to the logistic equation with intrinsic growth rate "r" and carrying capacity "K" is

```
u = @(t,r,K) K./(1+exp(-r*t)*(K/9.6-1))
```

Take a guess r = 1 and K = 600, plot, compare to the data

```
plt1;
hold on;
plt2 = plot(times, u(times,1,600),'-b');
hold off
```

Perhaps we can do better...