This is a simple example LaTeX document, demonstrating plain text, mathematical notation (both inline and displayed), definition and use of a 'newcommand', a figure, a table and some displayed program text.

Integrating out $w$, we find

$$p(z|k,\delta) = \frac{\Gamma(k\delta)}{\{\Gamma(\delta)\}^k} \frac{\prod_{j=1}^k \Gamma(\delta + n_j)}{\Gamma(k\delta + n)} = \frac{\Gamma(k\delta)}{\Gamma(k\delta+n)\{\Gamma(\delta)\}^d} \prod_{j:n_j>0} \Gamma(\delta + n_j) \quad (1)$$

where $n_j = \#\{i : z_i = j\}$.

For comparison with the DP model, it is helpful to express the distribution (1) as a distribution over *partitions*.

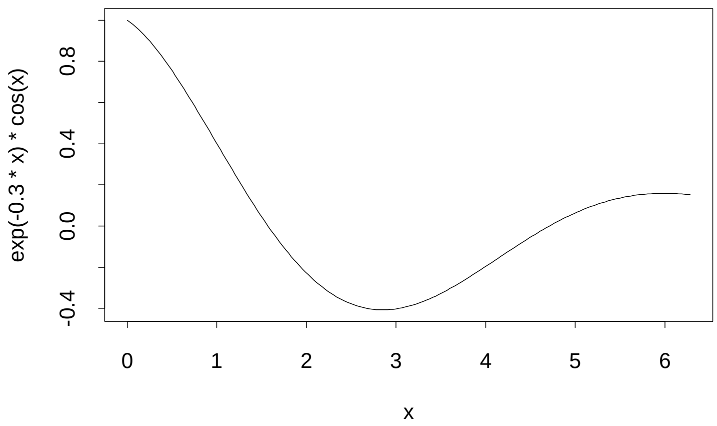


Figure 1: This is the graph of a function.

Figure 1 was produced using the following **Splus** code:

```
> postscript('demopic.ps',height=5,width=7)
> x_seq(0,2*pi,len=200)
> plot(x,exp(-0.3*x)*cos(x),type='l')
```

and **Splus** was also used to make Table 1.

Table 1: This is a simple table.

| $x$ | $\exp(-0.3x)\cos(x)$ |
|---|---:|
| 0 | 1.0000 |
| 2 | $-0.2284$ |
| 4 | $-0.1969$ |
| 6 | 0.1587 |