1. $\Gamma(p) = \int_0^{+\infty} x^{p-1} e^{-x}\, dx$
2. $\Gamma(1) = 1$
3. $\Gamma(p) = (p-1)\,\Gamma(p-1)$
4. $\Gamma(n) = (n-1)!$
5. $\Gamma\left(\frac{1}{2}\right) = \sqrt{\pi}$
6. $\beta(p,q) = \frac{\Gamma(p)\,\Gamma(q)}{\Gamma(p+q)}$