Theory:-COunting seems easy as enough 1,2,3,4 etc. This approach counting simple things like your toes-works and may be only approach complicated things with no identifable structure. However subtler methods can help you count many things in the vast middle ground, such as:

1. The number of different ways to select a dozen doughnuts when there are five varieties available.

2. The number of 16-bit numbers with exactly 4 ones

perhaps surprisingly but not coincidentally these two object it is an important part of discrete mathematics. We must count objects to solve many different types of problems, like the determining wheter there are enough telephone numbers or internet protocol address to meeet demand. Counting techniques are also used when probabilkitties of events are computed.

Source code:Z=sage.function.prime\_pi.PrimePi()
loads(dumps(Z))
loads(dumps(Z))==Z