Properties of Laser

Properties of laser: The laser differs from the ordinary light in the following ways:

1. **Monochromaticity**: This means that the laser light has a single color (mono-single, chromaticity—coloration). This is because the lasers are of a single wavelength and thus the definite frequency. Ordinary light however has many wavelengths.
2. **Coherence**: Laser radiations are not of the same wavelength but also has same phase. Coherence means similar or synchronous behaviour of laser beam. This means two things simultaneously. First, the laser beam is temporarily coherent, means that the photons are in same phase with crests meeting crests and troughs meeting troughs in time. Secondly, the laser beam is spatially coherent, means the photons are unidirectional and stay in same phase over long distances and little spread of beam. Ordinary light on contrary has variable wavelengths.
3. **Collimation**: Laser beams remain collimated that means they remain in parallel. They do not diverge much and the energy can be propagated over a larger distance.