

Re: What is a diffraction order?

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"Diffraction order" refers to diffraction gratings, and the angles of the beams that are either reflected from or transmitted through them.

A diagram would illustrate the concept better than I could describe with text alone. It might help for you to Google "diffraction grating" and look for a figure that explains the concept.

At any rate, here is my text description of diffraction orders. Again, a diagram is really required to understand it:

The (reflected or transmitted) beams from a grating have the following property: the optical path difference for adjacent rulings on the grating must be an integer multiple of the wavelength. This integer gives the order for that particular beam.

So:

The zero-th order beam has an optical path difference of zero between rulings,

The first order beam has an optical path difference equal to one wavelength,

The second order beam has ... two wavelengths,
etc. etc.

Mark

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◇ *From:* Peter Jay Salzman
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