Marisa Lord

Math project

# Math in Everyday Life

Working in the optical industry I use math every day and interestingly- I work within the first and second quadrant on a daily basis when actually making the glasses.

There are 4 basic numbers that are potentially involved in your Rx. For the purpose of this explanation- we will focus on the main 4 and I'm going to present a basic problem that I get asked every day, especially as we get more and more technologically advanced. And that question is:

What would my prescription be for glasses:
Let's consider the prescription below:

| EYE | Sphere | Cyl | Axis | Add |
|---|---|---|---|---|
| **OD** | **-2.00** | | | **+2.00** |
| **OS** | **-2.00** | **-1.00** | **160** | **+2.00** |

For a computer use, we generally accept that screens are about arm's length. So for this you would generally need about half of your reading power.

So in this case the RX for reading only would become: or essentially no power except for the astigmatism in the left eye.

| EYE | Sphere | Cyl | Axis | Add |
|---|---|---|---|---|
| **OD** | **plano** | | | |
| **OS** | **plano** | **-1.00** | **160** | |

If we consider what we know for the general rule about computer rules and distance we would get a computer rx of:

| EYE | Sphere | Cyl | Axis | Add |
|---|---|---|---|---|
| **OD** | **-1.00** | | | |
| **OS** | **-1.00** | **-1.00** | **160** | |

If the person wanted the prescription to be something other than single vision, then we would consider splitting the add…. But that's probably a bit more advanced- then I need to get into.

As a side note I would like to point out that in order for me to make these glasses,  I would need to orient that lens within the first or second quadrant like a graph. Which is what the axis tells me- its orientation in relation to the X and Y, and how to position the lens to accommodate the astigmatism correction. A number between 1and 180