



Plan Your Warp

I am going to make: _____ IN _____
Item* Warp Yarn*

$$\frac{\text{Finished Length of Item*}}{\text{Hem or Fringe*}} + \frac{\text{Hem or Fringe*}}{\text{Total Length of Each Item}} = \frac{\text{Total Length of Each Item}}{\text{Total Length of Each Item}}$$

$$\frac{\text{\# of Items to be Woven}}{\text{Total Length of Each Item}} \times \frac{\text{Total Length of Each Item}}{\text{Woven Length (inches)}} = \frac{\text{Woven Length (inches)}}{\text{Woven Length (inches)}}$$

$$\frac{\text{Take-up*}}{\text{Shrinkage*}} + \frac{\text{Shrinkage*}}{\text{Woven Length (inches)}} \times \frac{\text{Woven Length (inches)}}{\text{Total Take-up and Shrinkage (inches)}} = \frac{\text{Total Take-up and Shrinkage (inches)}}{\text{Total Take-up and Shrinkage (inches)}}$$

$$\frac{\text{Loom Waste*}}{\text{Total Take-up and Shrinkage}} + \frac{\text{Total Take-up and Shrinkage}}{\text{Woven Length}} + \frac{\text{Woven Length}}{\text{Total Length of Warp (inches)}} = \frac{\text{Total Length of Warp (inches)}}{\text{Total Length of Warp (inches)}}$$

$$\frac{\text{Total Length of Warp (inches)}}{36} = \frac{\text{Total Length of Warp (yards)}}{\text{Total Length of Warp (yards)}}$$

$$\frac{\text{Width (of item) in the Reed}}{\text{EPI}} \times \frac{\text{EPI}}{\text{Total \# of Ends}} = \frac{\text{Total \# of Ends}}{\text{Total \# of Ends}}$$

Warping from the Back?

$$\frac{\text{EPI*}}{\text{Raddle Dents per Inch}} = \frac{\text{\# Warp Ends per Raddle Dent}}{\text{\# Warp Ends per Raddle Dent}}$$

$$\frac{\text{Width in the Reed*}}{\text{Raddle Dents per Inch}} \times \frac{\text{Raddle Dents per Inch}}{\text{Total \# of Raddle Groups}} = \frac{\text{Total \# of Raddle Groups}}{\text{Total \# of Raddle Groups}}$$

Explanations

<p>* The Item is what you are going to make. For example: a Scarf, Dishtowel or Mug Rug.</p>
<p>* Warp Yarn is what yarn you are planning to use for the warp. For example: 5/2 mercerized cotton yarn.</p>
<p>* The Finished Length of Item is how long each item will be when it is finished.</p>
<p>* Hem or Fringe includes whatever you will weave or allow to finish your item. 1.5 " on each side works well for a nice hem on most items. Fringe is really a matter of taste: for short fringe use 3", for medium fringe use 6" and for long fringe use 12" for each side of the item. Keep in mind that the fringe length loses about 25% when plied. Remember to include hem or fringe on both sides of your item.</p>
<p>* Take-up is the extra yarn that will be needed to go over and under the weft yarns. We usually use 10% for take-up with mercerized cotton yarn. Warp Rep with large filler uses more, small wefts and flat weaves use less. Use the number as a decimal on the sheet, e.g. 0.1 for 10%)</p>
<p>* Shrinkage is how much you expect the yarn to shrink in washing and drying. This varies by fiber. Wool shrinks more than cotton, unmercerized cotton yarn shrinks more than mercerized. We usually use 5% for shrinkage with mercerized cotton yarn, 10% for unmercerized yarn. Use the number as a decimal on the sheet, e.g. 0.1 for 10%)</p>
<p>* Loom Waste is the amount of warp yarn that you will not be able to weave or used for sampling. Included in this number is the amount used at the beginning to tie to the front apron rod, the yarn that you won't weave at the end. We usually use 27" or 36".</p>
<p>* Width in Reed and EPI (Ends Per Inch) come from your pattern.</p>
<p>* Raddle Dents per Inch depends on your raddle. Most commercial raddles have 1, 2 or 4 dents per inch.</p>