Pattern Adjustments

We use this table (in the form of a spreadsheet) to help us figure out how many repeats we can thread across our project:

Matching Project Warp Ends to Structure Repeats

If the number of warp ends doesn't match the pattern repeat, you must either add or substract warp ends, taking into account selvages and balancing motifs.	
Fill only the white cells, the yellow cells will be automatically calculated	
Width on the loom, inches	
Sett, ends per inch	
Total warp ends	0
Adjustment for selvages, # of threads	
Adjustment for balancing thread or motif, # of threads	
Threads available for pattern repeat	0
Number of threads in 1 repeat of pattern	
Number of repeats	0
Warp ends to be *subtracted* for the lower full repeat	0
Inches equivalent of warp end to be subtracted	0.0
Total warp ends if extra threads subtracted	**0**
Warp ends to be *added* for the next full repeat	0
Inches equivalent of warp end to be added	0.0
Total warp ends if more threads added	**0**

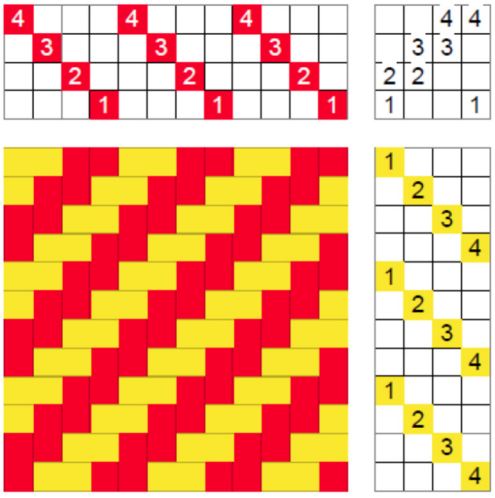
Before we can figure out the repeats, we have to "reserve" – subtract – threads that will be used for selvage and / or for balancing threads or repeats.

What do we mean by that? Here are some examples that should help understand the concept.

Example #1

Adjustment for selvages: 0

Adjustment for balancing thread or motif: 0

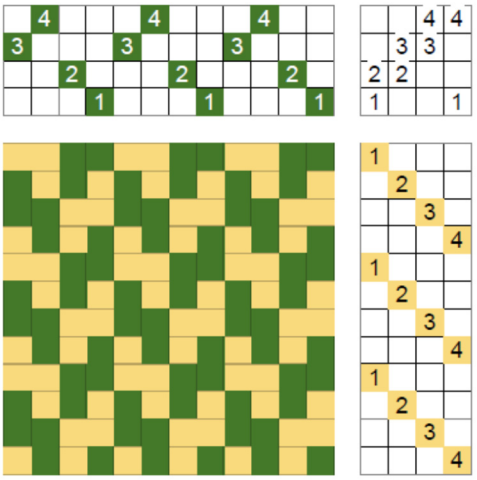


Straight Twill: floating selvages are not needed if the shuttle enters in the right direction.

Example #2

Adjustment for selvages: 2 floating selvage threads, 1 on each side

Adjustment for balancing thread or motif: 0

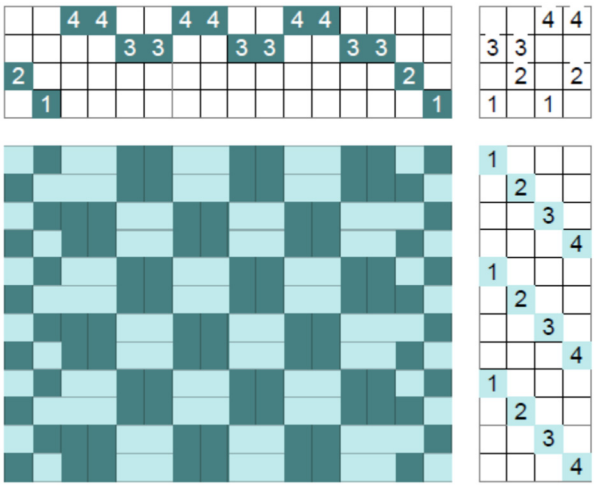


Broken Twill: floating selvages are needed in the version of broken twill shown on the right. If the piece is narrower than the loom, floating selvages do not have to be counted and can be added later. But when using the entire width of the loom, spaces for floating selvages are needed in the reed.

Example #3

Adjustment for selvages: at least 2 threads on each side

Adjustment for balancing thread or motif: 0

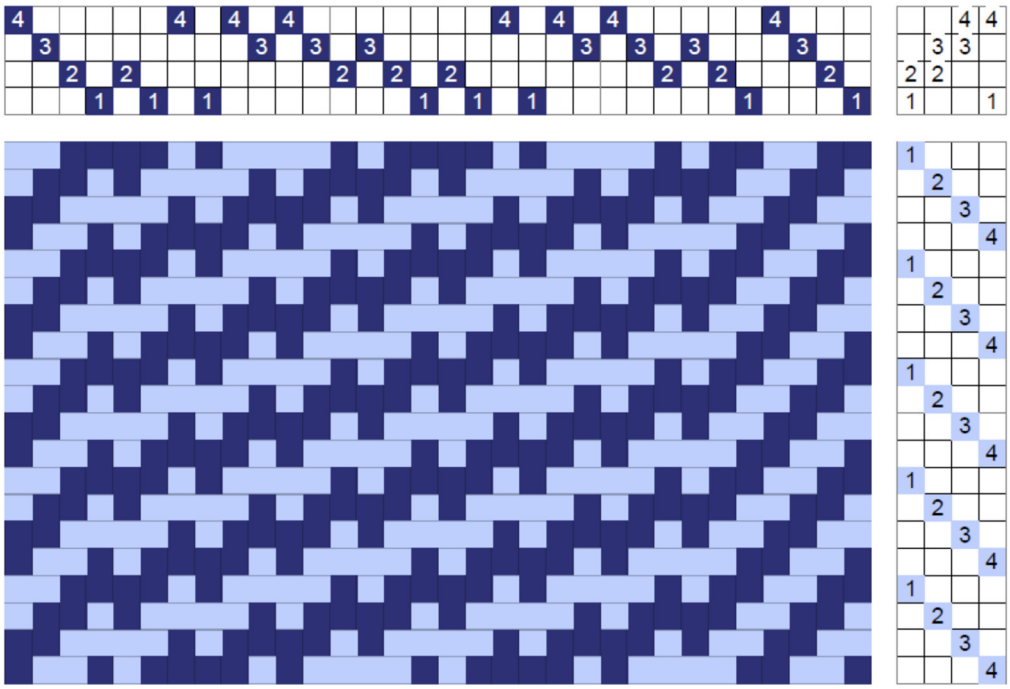


Basket weave: it only needs 2 shafts, but on 4, plain weave can be added at the selvages, avoiding floating selvages and making a nice edge.

Example #4

Adjustment for selvages: 0

Adjustment for balancing thread or motif: 4 threads



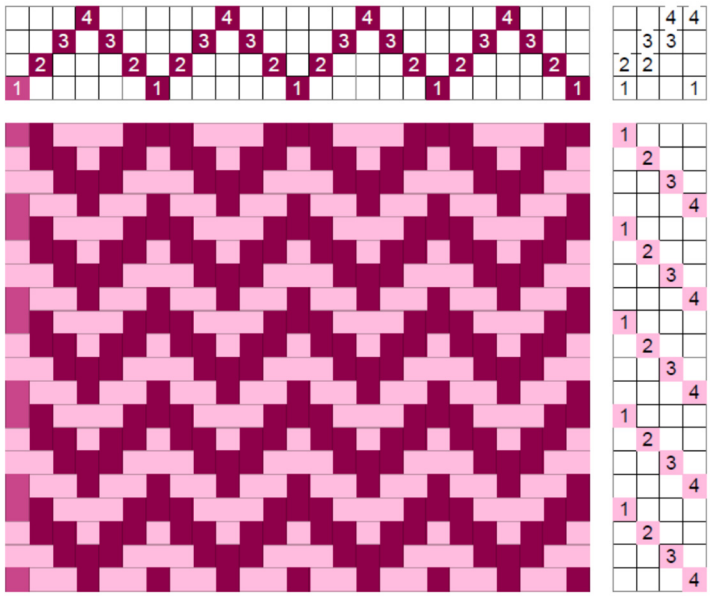
Advancing Twill:

Advancing twills can start with a straight will, as this one does. I like to add a repeat of straight twill on the opposite side to balance it.

Example #5

Adjustment for selvages: 2 floating selvage threads

Adjustment for balancing thread or motif: 1 thread



Pointed Twill: the thread on shaft 1 shown in a lighter shade is the balancing thread. Because the twill starts and ends on an odd shaft, floating selvages are needed.

Example #6

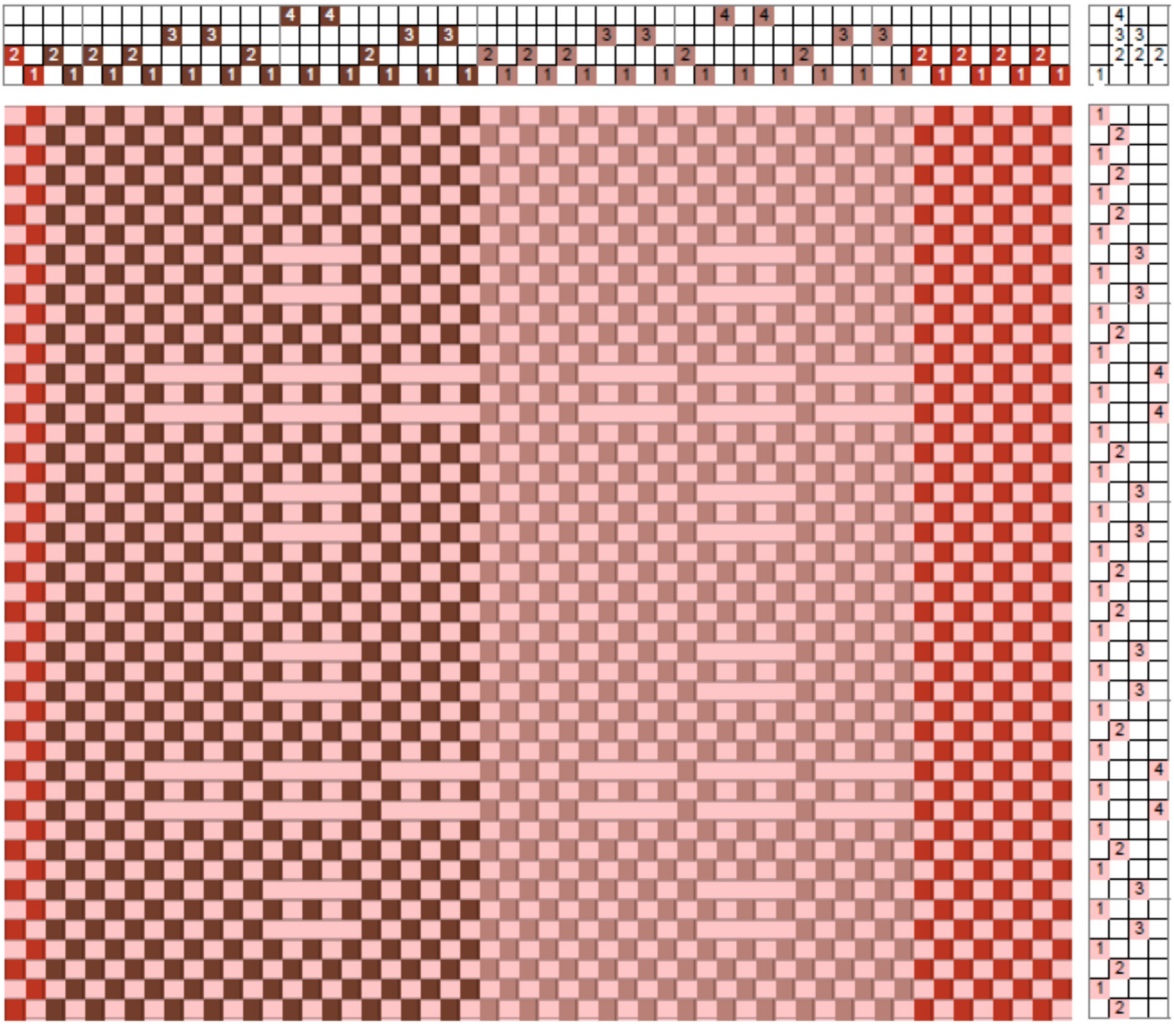
Adjustment for selvages: 8 + 2 = 10 threads

Adjustment for balancing thread or motif: 0

Bronson Lace: The drawdown for this example is color-coded. On the right side we have 8 threads for a plain weave selvage. There are two repeats of the motif, each of which is in a slightly different color. The motif is blocks A (1, 3, 1, 3, 1, 2), B (1, 4, 1, 4, 1, 2), A, plus 4 threads for plain weave for a total of 22 threads (6+6+6+4 = 22). Note that the motifs are separated by 6 threads of plain weave, but each block ends with 1, 2, which forms plain weave as part of the block.

The last motif ends with 2 threads of plain weave part of block B (1, 4, 1, 4, **1, 2**) plus 4 threads of plain weave (**1, 2, 1, 2**) of the motif, for a total of 6. The other side started with 8 threads of plain weave, so we need to add 2 more to balance the fabric.

No balancing motif or thread is needed because the motif is balanced already.



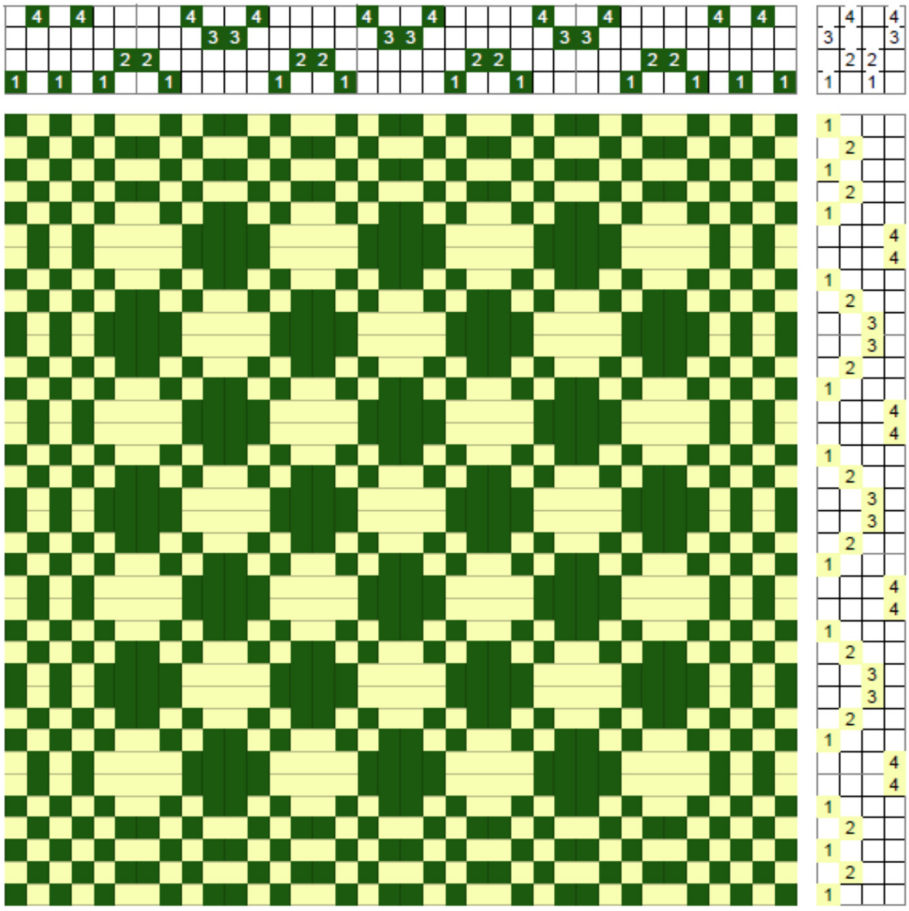
Example #7

Adjustment for selvages: 8, 4 on each side for framing, plus 2, 1 floating selvage on each side = 10 threads

Adjustment for balancing thread or motif: 4 threads

Canvas Weave: Blocks A and B alternate weaving warp and weft floats; to balance the fabric we start and end with block A. To avoid long floats right to the selvage of the fabric, which could make the edges vulnerable to snagging, we add a border of a plain weave / basket weave

combination, since it's not possible to weave plain weave down the length of the fabric. Because the selvage threads won't catch with every shot, we add floating selvages.



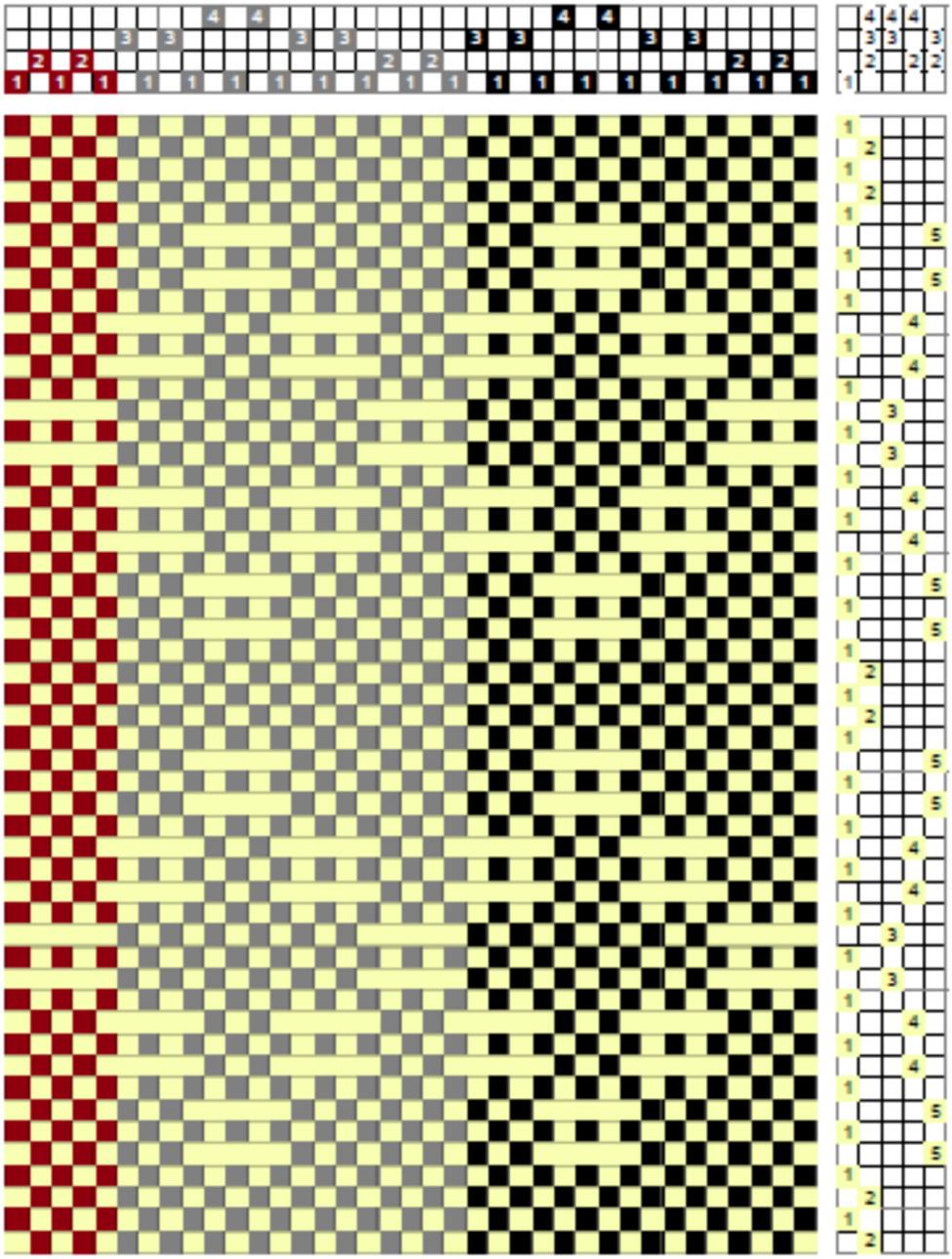
Example # 8

Adjustment for selvages:2 floating selvages, one on each side

Adjustment for balancing thread or motif: 4 threads for balancing motif plus 1 thread, total of 5

Spot Bronson: this is similar to the example of week 3, but it is color coded for a clearer explanation. The motif is blocks A (1, 2, 1, 2), B (1, 3, 1, 3), C (1, 4, 1, 4), and B; two repeats are shown. At the end of the 1st block and at the beginning of the next of two adjacent blocks, a

thread on shaft 1 is shared, and the float of the 1st block covers it, resulting in a 5-thread float. At the edge of the fabric, we must add a block A (1, 2, 1, 2) in order to balance the motif. This results in a float over 4 threads; in order to match the 5-thread float of the other blocks, we add a balancing thread on shaft 1. Since there is no plain weave possible down the length of the fabric, floating selvages are needed.



While these calculations take a bit of time, we are able to design a unique fabric exactly the way we want it.

Some may find the purple Bronson Lace shawl charming, others find it boring.