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(Blog: Odd Ball Knitting - http://mlqknits.typepad.com/odd_ball_knitting/)

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How to estimate Yarn requirements

(This goes with the previous posting about the [simple jacket design](#) - again it is my copyright, so ask first - OK?)

Estimating Yarn - How-To (as requested by Heather & [Nikki](#))

There are several ways you can do it:

1) Ask the lady in the shop where you buy the yarn - she may well be able to help/advise

or

2) If you can find a pattern for something similar in the yarn you've got, use the yarn requirements quoted in that pattern as a starting point. Say you can find a jumper pattern in your size, but you want a jacket. It's probably a good idea to add on an extra ball or 2 for edgings, collar, pockets etc.

If you can only find a ball of yarn similar in weight to your yarn (ie knits at the same tension), check out the yarn length for each ball of that (which may be quite different from the yarn which you actually have). See if you can find a pattern similar to what you want for that yarn, and look at the requirements for that yarn. What is the total yardage needed? - multiply the number of balls in the yarn requirement in the pattern by the yardage for one ball - then work out how many balls that would be in your yarn

or

3) European yarns usually carry a useful piece of info on the ball band. Look for the little picture of a jumper, it's normally for the average size female which I think in European terms will be quoted as 38-40, there will be an average yarn requirement for that garment (which should be a simple stocking stitch jumper with full length sleeves) given in grams. Convert to balls by dividing the number of grams needed by grams in the ball, eg. if it says 400 - 450 gms, and the ball contains 50 grams, then that's $400/50 = 8$ balls or $450/50 = 9$ balls. Almost always a good idea to add on an extra ball or 2 in case.

or

4) Divide the wool you have in half - using one of the halves, knit the back and one sleeve. If you haven't run out of your chosen half, then you probably have

enough to complete.

or

5) A reasonably simple way to calculate yardage. Check your ball band - most balls of yarn now tell you the yardage in each ball. For this exercise only, the average chunky yarn has 50 yards to a 50 gram ball (the real yarn may be quite different).

Now look at my pattern for the simple jacket. A row of stocking stitch takes approximately a length of yarn 3 times the width of the piece you're knitting, so each row in the back 20 inches wide will take about 60 inches of yarn. Multiply that by the number of rows you need to get the length 24 inches (so that's 60 inches of yarn x 24 inches length of knitting x 5 rows per inch) which gives you 7200 inches or 200 yards. The fronts will take about the same amount again, so another 200 yards. Treat the sleeves as though they're ordinary rectangles, rather than tapered (but use the width at the top of the sleeve, not the bottom!) - that's 18 inches x 3 for the length of each row, ie 54 inches, then times 18 inches for sleeve length x 5 rows to the inch, and don't forget there are 2 sleeves(!), you get 9720 inches, or 270 yards. You also need to do the same for the front bands - 24 inches wide, so each row uses 72 inches, you have 8 rows for each band, so that's 72 x 16 = 1152 inches or 32 yards, and the collar about 16 inches wide (uses 48 inches a row, and there are about 22 rows, that's 48 x 22 = 1056 inches, or 29.33 yards. Total yardage needed is about 732 yards. Add on 10% to allow for errors, call it 800 yards. That's 16 balls of yarn.

or

6) The really anal method! (guess which one I'd use!) - Using one ball of your yarn and your larger size needles, cast on 100 stitches, and keep knitting in stocking stitch (or whatever stitch pattern you're going to use for the main part of your garment) till you run out, making a note of the number of completed rows. For example, say you complete 20.5 rows - ignore the half row, this will form part of the yarn allowed for sewing up (and safety margin)- so with one ball of yarn you can knit 20r x 100s = 2000 stitches. Looking at the pattern for [my jacket](#), an average size as given, will eventually contain the following number of stitches:

Back - cast on row 1r x 60s = 60s
Back - garter band 8r x 60s = 480s
Back - stocking stitch 116r x 60s = 6960s
Cast off row 1r x 60s = 60s
Total for Back = 7560 stitches

2 Fronts - cast on row 2 x 1r x 27s = 54s
2 Fronts - garter band 2 x 8r x 27s = 432s

2 Fronts - stocking stitch $2 \times 116r \times 27s = 6264s$
2 Fronts - cast off row $2 \times 1r \times 27s = 54s$
Total for 2 fronts = 6804 stitches

Sleeves - cast on row $2 \times 1r \times 30s = 60s$
Sleeves - garter band $2 \times 8r \times 30s = 480s$
rows before 1st increase $2 \times 6r \times 30s = 360s$
rows before 2nd increase $2 \times 6r \times 32s = 384s$
rows before 3rd increase $2 \times 6r \times 34s = 408s$
rows before 4th increase $2 \times 6r \times 36s = 432s$
rows before 5th increase $2 \times 6r \times 38s = 456s$
rows before 6th increase $2 \times 6r \times 40s = 480s$
rows before 7th increase $2 \times 6r \times 42s = 504s$
rows before 8th increase $2 \times 6r \times 44s = 528s$
rows before 9th increase $2 \times 6r \times 46s = 552s$
rows before 10th increase $2 \times 6r \times 48s = 576s$
rows before 11th increase $2 \times 6r \times 50s = 600s$
rows before 12th increase $2 \times 6r \times 52s = 624s$
finally for each sleeve, you have to knit a further 2.5 inches (or so) - that's 2.5×5 rows = 12.5 rows, call it 14 if you want to end with a purl row (makes casting off easier!)
after final increase $2 \times 14r \times 54s = 1512s$
cast off row $2 \times 1r \times 54s = 108s$
Total for 2 sleeves = 8064 stitches

Front bands - pick up row $2 \times 1r \times 90s = 180s$
Garter stitch rows $2 \times 8r \times 90s = 1440s$
Cast off row $2 \times 1r \times 90s = 180s$
Total front bands = 1800 stitches

Neck edging - pick up row $1r \times 50s = 50s$
edging $6r \times 50s = 300s$
Collar $16r \times 50s = 800s$
Cast off row $1r \times 50s = 50s$
total for neck edging and collar = 1200 stitches

Grand total for jacket = 25428 stitches

Divide your grand total by the number of stitches you got for one ball,
 $25428/2000 = 12.714$ balls. Obviously you have to round this up to the nearest number of whole balls, so that's 13 balls of yarn, and to be on the safe side I'd allow 10% extra, call it 15 balls in total.

Other things

Remember that garter stitch and rib use much more yarn than stocking stitch.

It's worth knitting a few rows in these to see just how much more.

ALWAYS buy more than you think you'll need, or see if the shop has a set aside policy (ie they'll reserve some extra for you in case you run out), or if they'll give you a refund / credit note if you return the unused balls in good condition. Otherwise be prepared to use up the spare stuff as scarves, sell it on eBay, add to your stash, etc.

Finally - things to do if after all that stuff above you still haven't got enough, for example you're stash-busting, rather than buying new? - See if you can get some more of the same yarn (check the dye-lot), if you can get the colour but not the dye-lot, knit it in stripes alternating every 2 rows between different dye-lots. If you can't get the same yarn / colour, then think about stripes of other yarns, or contrast edgings, or slip stitch patterns, or fair-isle. Maybe only knit a waistcoat instead. Consider knitting your pieces from the top down - divide the yarn you have into lots, 1/3 for the back, 1/3 for the front and 1/6 for each sleeve. If you knit downwards, you can see how close you can get to the desired length, and then finish off in your contrast yarn. Useful books here are any of those wonderful Odham's books published in England between about 1930 and about 1960 - and especially the ones published between 1940 & 1945 - they have titles like 'Practical Knitting' - these are full of useful tips about making do / mending (no, I'm not old enough to remember it!), and are great for stash-busting ideas, as well as being a real social history of knitting ...

Hope all of this has been of some help for you - I found that it was quite useful for me to set it all down, because it really made me think about how you do this properly (not for nothing is this b**g called Odd Ball Knitting - shameless plug here!)