

COGNAC SWEATER

by @atelier_castin



The Cognac Sweater is a versatile knitting pattern with a top-down construction, German short row shaping, and contiguous set-in sleeves. This basic stockinette sweater can also be worn as a blouse and features half-twisted rib or i-cord details for the collar, as well as body and sleeves. It also has a perfected rounded crew neck.

Sizes 1 (2) 3 (4) 5 (6) 7 (8) 9, for a finished bust circumference of 82.5 (92.5) 102.5 (112.5) 122.5 (135) 145 (155) 165 cm [32 $\frac{1}{2}$ (36 $\frac{1}{2}$) 40 $\frac{1}{4}$ (44 $\frac{1}{4}$) 48 $\frac{1}{4}$ (53 $\frac{1}{4}$) 57 (61) 65"] and cross-back width of 35 (36.3) 37.5 (38.8) 40 (41.3) 42.5 (43.8) 45 cm [13 $\frac{3}{4}$ (14 $\frac{1}{4}$) 14 $\frac{3}{4}$ (15 $\frac{1}{4}$) 15 $\frac{3}{4}$ (16 $\frac{1}{4}$) 16 $\frac{3}{4}$ (17 $\frac{1}{4}$) 17 $\frac{3}{4}$ "].

Gauge 16 sts x 22 rows - 10 x 10 cm [4 x 4"] in stockinette stitch on 6 mm needles [US 10] blocked.

Needles 6 mm needles [US 10] circular needles or the ones required to meet gauge. 5 mm [US 8] circular needles for the collar and hems for half-twisted rib or a size down from the main needles.

Notions 5 stitch markers, scrap yarn or additional cables, tapestry needle.

Yarn Fingering held with silk mohair or suri.

It is recommended to hold a strand of fingering with a strand of hairy mohair or suri to fill in the gaps in the fabric and obtain a light and airy fabric.

Approx. metrage required: 614 (661) 712 (776) 848 (921) 974 (1053) 1134 m [671 (723) 779 (849) 927 (1007) 1066 (1152) 1240 yd]¹.

Recommended Yarn Merino Fingering, Olivia and Oliver Fibers (100 g = 400 m / 438 yards), 2 (2) 2 (2) 2-3 (3) 3 (3) 3 skeins.

held with Tilia, Filcolana (25 g = 210 m / 230 yards), 3 (3) 3-4 (4) 4 (4) 4-5 (5) 5 skeins.

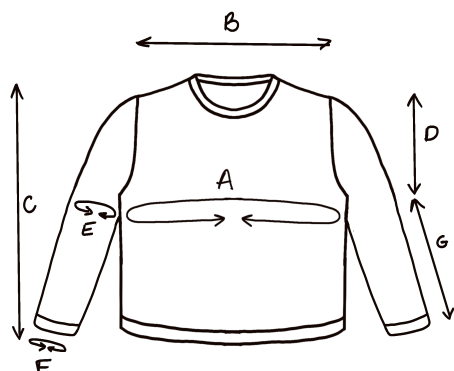
Techniques Knitting in the round, German short rows, increases, placing stitches on hold, picking up stitches, half-twisted rib or i-cord, Italian bind-off, wet blocking. Video support provided.

¹Yardages are rounded approximations.

The Cognac Sweater is constructed top-down with a 3D seamless shape created with contiguous set-in sleeves. First, the back section is shaped with German short rows. Then, stitches are picked up to create the shoulders before dividing the work into sections that are worked simultaneously: the front, back, sleeves and neckline. Once the yoke is done, sleeves and body are worked in the round independently and finished with either half-twisted rib or i-cord edges. Finally, a collar is added to finish the project.

Size Guide

The Cognac Sweater is designed to have approx. 4-14 cm [$1\frac{1}{2}$ -5 $\frac{1}{2}$ "] of positive ease (4-14 cm [$1\frac{1}{2}$ -5 $\frac{1}{2}$ "] larger than your bust circumference) and sits about 5 cm [2"] past your natural waist. Before beginning your project, measure both your bust circumference and cross back width (shoulder tip to tip) width to determine your size.



Finished Measurements in cm

Size	1	2	3	4	5	6	7	8	9
A - Bust Circumference	82.5	92.5	102.5	112.5	122.5	135	145	155	165
B - Cross Back Width	35	36.3	37.5	38.8	40	41.3	42.5	43.8	45
C - Body Length	45	46	46.5	46	46.5	47.5	48	48	48.5
D - Armhole Depth	19	20	22	22.5	23.5	25.5	26.5	28	29
E - Upper Sleeve Circumf.	31.5	34	37.5	41.5	45	49	52.5	57.5	60
F - Cuff Circumference	24	25	22.5	26.5	27.5	27.5	26.5	31.5	34
G - Sleeve Length	43	43	43	43	43	43	43	43	43

Finished Measurements in inches

Size	1	2	3	4	5	6	7	8	9
A - Bust Circumference	32 $\frac{1}{2}$	36 $\frac{1}{2}$	40 $\frac{1}{4}$	44 $\frac{1}{4}$	48 $\frac{1}{4}$	53 $\frac{1}{4}$	57	61	65
B - Cross Back Width	13 $\frac{3}{4}$	14 $\frac{1}{4}$	14 $\frac{3}{4}$	15 $\frac{1}{4}$	15 $\frac{3}{4}$	16 $\frac{1}{4}$	16 $\frac{3}{4}$	17 $\frac{1}{4}$	17 $\frac{3}{4}$
C - Body Length	17 $\frac{3}{4}$	18	18 $\frac{1}{4}$	18	18 $\frac{1}{4}$	18 $\frac{3}{4}$	19	19	19
D - Armhole Depth	7 $\frac{1}{2}$	7 $\frac{3}{4}$	8 $\frac{3}{4}$	8 $\frac{3}{4}$	9 $\frac{1}{4}$	10	10 $\frac{1}{2}$	11	11 $\frac{1}{2}$
E - Upper Sleeve Circumf.	12 $\frac{1}{2}$	13 $\frac{1}{2}$	14 $\frac{3}{4}$	16 $\frac{1}{4}$	17 $\frac{3}{4}$	19 $\frac{1}{4}$	20 $\frac{3}{4}$	22 $\frac{3}{4}$	23 $\frac{1}{2}$
F - Cuff Circumference	9 $\frac{1}{2}$	9 $\frac{3}{4}$	8 $\frac{3}{4}$	10 $\frac{1}{2}$	10 $\frac{3}{4}$	10 $\frac{3}{4}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$
G - Sleeve Length	17	17	17	17	17	17	17	17	17

Abbreviations

K knit

P purl

BOR beginning of the round

PM place marker

CO cast-on

M1L make 1 left

M1R make 1 right

GSR German Short Row

ds double stitch

K2tog knit 2 sts together

K2togL knit 2 sts together left

RS right side

WS wrong side

SL slip

tbl through the back loop

DR decrease round

Notes

It is recommended to read through the pattern before starting, as it includes size-specific instructions. Consider highlighting the sections relevant to your size.

Also, achieving the correct row gauge is key to ensuring the desired outcome. Deviations in row gauge can lead to an ill-fitting or disproportionate yoke.

When knitting with different fibers remember that the garment's weight, drape, and structure will be impacted. Blocking behavior may also vary, thus blocking your swatch is more than recommended.

Techniques

long-tail cast-on: basic and versatile cast-on method.



youtu.be/sN9cNEozOLc

German short rows: shaping technique to work partial rows.



youtu.be/a3S9cl47PYw

backward loop cast-on: cast-on technique for the middle or end of a row.



youtu.be/dDfrvqQBGbE

half-twisted rib: knit stitches are knitted through the back loop and purl stitches are worked in a standard manner.



youtu.be/F4Vl4uVLoV4

i-cord bind-off in the round and grafting: reversible bind-off technique that provides a clean and elegant finish.



youtu.be/Qo2hLugfXvg

picking up stitches: insert your needle in between the previously knitted stitches and knit. One stitch has been picked up, repeat as many times as required in the pattern.



youtu.be/eHbP11wG9K0

knitted cast-on: technique to add new stitches before the next stitch by knitting the stitch without letting it off the left needle and placing the new stitch back on the left needle.



youtu.be/r4dFSamX30k?t=61

Italian bind-off for half-twisted rib: sewn bind-off for half-twisted rib.



youtu.be/6ZCQlNRb2hw?t=198

K2togL: knit 2 sts together left-leaning decrease.



youtu.be/owAyJQAciM

M1L: Insert the left needle under the bar formed by the stitch you just knitted and the stitch you are about to knit from front to back, and knit through the back loop.



youtu.be/WaYnJ0Z8c4k

M1R: Insert the left needle under the bar formed by the stitch you just knitted and the stitch you are about to knit from back to front, and knit.



youtu.be/Xj09DdHeEBss

Instructions

1 Back

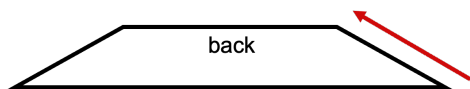
The back section is shaped with German short rows to create a trapezoidal shape. You will work in stockinette to the last ds, resolve the ds by knitting (RS) or purling (WS) the ds as one st, work 2 sts, turn and make ds.

- Cast on loosely 56 (58) 60 (62) 64 (66) 68 (70) 72 sts on 6 mm [US 10] needles with long-tail cast-on. Break the yarn.
- Slip the first 14 (15) 16 (17) 18 (18) 18 (19) 20 sts, join new yarn and purl the next 28 (28) 28 (28) 28 (30) 32 (32) 32 sts, turn, make double stitch (ds).
- (RS) Knit 29 (29) 29 (29) 29 (31) 33 (33) 33 sts, turn, make ds. (12 (13) 14 (15) 16 (16) 16 (17) 18 sts remain unworked before turn)
- (WS) Purl until ds, resolve ds, P2, turn, make ds. (12 (13) 14 (15) 16 (16) 16 (17) 18 sts remain unworked before turn)

Continue working in GSR turning 2 sts after the last ds.

- Row 1: (RS) Knit until ds, resolve ds, K2, turn, make ds.
- Row 2: (WS) Purl until ds, resolve ds, P2, turn, make ds.
- Repeat Row 1 and 2, 4 (5) 5 (6) 6 (6) 6 (7) 7 **more** times for a total of 5 (6) 6 (7) 7 (7) 8 (8) 8 times.
- 2 (1) 2 (1) 2 (2) 2 (1) 2 sts on each side remain unworked.
- Knit until ds, resolve ds, knit until the end of the row. (1 ds and 2 (1) 2 (1) 2 (2) 2 (1) 2 stitches remain unworked. They will be worked in Section 4.).
- **Do not break yarn** but leave stitches on spare cable or scrap yarn.

2 Right Shoulder

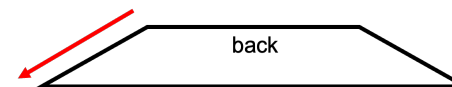


- Position the back section with RS facing you, cast-on edge at the top and stitches on hold at the bottom. From the RS, with the working yarn left from the back panel, pick up 14 (15) 16 (17) 18 (18) 18 (19) 20 sts for the right shoulder in the right slanted edge (in between the stitches, see picking up stitches technique).

Next row is a WS row.

- Work 17 (17) 17 (17) 17 (17) 17 (17) 17 rows in stockinette, or approximately 8 (8) 8 (8) 8 (8) 8 (8) 8 cm [$3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) "]. Last row is a WS row.
- Break yarn and leave stitches on spare cable or scrap yarn.

3 Left Shoulder

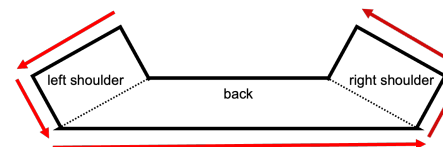


- From the RS and cast-on edge on top, join new yarn and pick up 14 (15) 16 (17) 18 (18) 18 (19) 20 sts for left shoulder in the left slanted edge (in between the stitches, see picking up stitches technique).

Next row is a WS row.

- Work 17 (17) 17 (17) 17 (17) 17 (17) 17 rows in stockinette, or approximately 8 (8) 8 (8) 8 (8) 8 (8) 8 cm [$3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) $3\frac{1}{4}$ ($3\frac{1}{4}$) "]. Last row is a WS row.
- **Do not break yarn.** Next row is a RS row.

4 Yoke



You will now join all sections together by knitting the shoulder stitches, picking up stitches for the sleeves and knitting the back stitches. You will place 4 markers (PM) to mark the different sections. At the same time, you will increase for the neckline at the beginning and end of the row.

- K1, M1L, knit left shoulder sts, PM, pick up 13 (13) 13 (13) 13 (13) 13 (13) 13 sts for left sleeve in left shoulder rows (approx. 3 sts out of 4 rows), PM, knit back sts (and resolve last ds), PM, pick up 13 (13) 13 (13) 13 (13) 13 (13) 13 sts for right sleeve in right shoulder rows (approx. 3 sts out of 4 rows), PM, knit right shoulder sts until 1 st remains, M1R, K1. (2 sts increased)

You have 112 (116) 120 (124) 128 (130) 132 (136) 140 sts on your needles.

4.1 Sleeves and Neckline Shaping

Cast-on for the neckline. You will now cast on sts for the neckline, close in the round and shape the neckline with German short rows while increasing for sleeves. You are on RS.

- Stay on RS and cast on 26 (26) 26 (26) 26 (28) 30 (30) 30 sts with the backward loop cast-on method.

You will now close in the round by knitting the stitches for the left shoulder next (still on RS). Be careful not to twist.

Setting up GSR. You will start shaping the neckline with GSR while at the same time increasing for sleeves. You will work in stockinette to the last ds (and increase for sleeves when needed), resolve the ds by knitting (RS) or purling (WS) it as one st, work a specified number of sts, turn and make ds. Charts are available in appendix for this section.

- Row 1: K across left shoulder sts, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to ds, resolve ds, K1, turn, make ds. (4 sts increased)
- Row 2: Purl all sts until reaching newly casted sts, P1, turn, make ds.

GSR turning 1 st after last turn. You will start shaping the neckline with GSR each time turning 1 st after last turn while at the same time increasing for sleeves.

- Row 1: K until marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to ds, resolve ds, K1, turn, make ds. (4 sts increased)
- Row 2: Purl to ds, resolve ds, P1, turn, make ds.
- Repeat Rows 1 and 2, 0 (0) 0 (0) 0 (0) 1 (1) 1 **more** times for a total of 1 (1) 1 (1) 1 (1) 2 (2) 2 times.

Distribution of sts: 17 (18) 19 (20) 21 (21) 22 (23) 24 sts for the left front, 17 (17) 17 (17) 17 (17) 19 (19) 19 sts for the left sleeve, 56 (58) 60 (62) 64 (66) 68 (70) 72 sts for the back, 17 (17) 17 (17) 17 (17) 19 (19) 19 sts for the right sleeve, 17 (18) 19 (20) 21 (21) 22 (23) 24 sts for the right front and 22 (22) 22 (22) 22 (24) 24 (24) 24 sts remain unworked for the bottom neck.

GSR turning 2 sts after last turn. Now you will start shaping the neckline with GSR each time turning 2 sts after last turn while at the same time increasing for sleeves.

- Row 1: K until marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to ds, resolve ds, K2, turn, make ds. (4 sts increased)
- Row 2: Purl to ds, resolve ds, P2, turn, make ds.
- Repeat Rows 1 to 2, 1 (1) 1 (1) 1 (1) 1 (1) 1 **more** times for a total of 2 (2) 2 (2) 2 (2) 2 (2) 2 times.

Distribution of sts: 21 (22) 23 (24) 25 (25) 26 (27) 28 sts for the left front, 21 (21) 21 (21) 21 (21) 23 (23) 23 sts for the left sleeve, 56 (58) 60 (62) 64 (66) 68 (70) 72 sts for the back, 21 (21) 21 (21) 21 (21) 23 (23) 23 sts for the right sleeve, 21 (22) 23 (24) 25 (25) 26 (27) 28 sts for the right front and 14 (14) 14 (14) 14 (16) 16 (16) 16 sts remain unworked for the bottom neck.

GSR turning 3 sts after last turn. Now you will start shaping the neckline with GSR each time turning 3 sts after last turn while at the same time increasing for sleeves.

- Row 1: K until marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to ds, resolve ds, K3, turn, make ds. (4 sts increased)
- Row 2: Purl to ds, resolve ds, P3, turn, make ds.

Distribution of sts: 24 (25) 26 (27) 28 (28) 29 (30) 31 sts for the left front, 23 (23) 23 (23) 23 (23) 25 (25) 25 sts for the left sleeve, 56 (58) 60 (62) 64 (66) 68 (70) 72 sts for the back, 23 (23) 23 (23) 23 (23) 25 (25) 25 sts for the right sleeve, 24 (25) 26 (27) 28 (28) 29 (30) 31 sts for the right front and 8 (8) 8 (8) 8 (10) 10 (10) 10 sts remain unworked for the bottom neck.

4.2 Sleeves Shaping

You will now start working in the round, resolving the last ds as you go and continuing to increase for the sleeves.

- Place marker for BOR in the middle of the front sts.
- Round 1: K until marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to next marker, slip marker, M1L, knit across sleeve sts, M1R, slip marker, knit to BOR. (4 sts increased)
- Round 2: K across.
- Repeat Rounds 1 and 2, 7 (6) 7 (8) 8 (8) 7 (8) 7 **more** times for a total of 8 (7) 8 (9) 9 (9) 8 (9) 8 times.

Distribution of sts: 28 (29) 30 (31) 32 (33) 34 (35) 36 sts for the left front, 39 (37) 39 (41) 41 (41) 41 (43) 41 sts for the left sleeve, 56 (58) 60 (62) 64 (66) 68 (70) 72 sts for the back, 39 (37) 39 (41) 41 (41) 41 (43) 41 sts for the right sleeve and 28 (29) 30 (31) 32 (33) 34 (35) 36 sts for the right front.

4.3 Sleeves and Armhole Shaping (charts available in appendix)

- **Only for sizes: 1, 2, 3 and 4.** You will increase both for sleeves and armholes every other round.
 - Round 1: Knit to 1 stitch before marker, M1R, K1, slip marker, M1L, knit across sleeve sts, M1R, slip marker, K1, M1L, knit to 1 stitch before marker, M1R, K1, slip marker, M1L, knit across sleeve sts, M1R, slip marker, K1, M1L, knit to BOR. (8 sts increased)
 - Round 2: K across.
 - Repeat Rounds 1 and 2, 2 (3) 2 (0) 0 (0) 0 (0) 0 **more** times for a total of 3 (4) 3 (1) 0 (0) 0 (0) 0 times.
- **Only for sizes: 3, 4, 5, 6, 7, 8 and 9.** You will increase for sleeves every other round and for armholes every round.

- Round 1: Knit to 1 stitch before marker, M1R, K1, slip marker, M1L, knit across sleeve sts, M1R, slip marker, K1, M1L, knit to 1 stitch before marker, M1R, K1, slip marker, M1L, knit across sleeve sts, M1R, slip marker, K1, M1L knit to BOR. (8 sts increased)
- Round 2: Knit to 1 stitch before marker, M1R, K1, slip marker, knit across sleeve sts, slip marker, K1, M1L, knit to 1 stitch before marker, M1R, K1, slip marker, knit across sleeve sts, slip marker, K1, M1L knit to BOR. (4 sts increased)
- Repeat Rounds 1 and 2, 0 (0) 0 (1) 1 (2) 2 (2) 2 **more** times for a total of 0 (0) 1 (2) 2 (3) 3 (3) 3 times.
- **Only for sizes: 2, 3, 4, 5, 6, 7, 8 and 9.** You will increase both for sleeves and armholes every round.
 - Round 1: Knit to 1 stitch before marker, M1R, K1, slip marker, M1L, knit across sleeve sts, M1R, slip marker, K1, M1L, knit to 1 stitch before marker, M1R, K1, slip marker, M1L, knit across sleeve sts, M1R, slip marker, K1, M1L knit to BOR. (8 sts increased)
 - Repeat Round 1, 0 (1) 3 (5) 9 (11) 13 (15) 19 **more** times for a total of 0 (2) 4 (6) 10 (12) 14 (16) 20 times.

Distribution of sts: 31 (35) 39 (42) 46 (51) 54 (57) 62 sts for the left front, 45 (49) 55 (59) 65 (71) 75 (81) 87 sts for the left sleeve, 62 (70) 78 (84) 92 (102) 108 (114) 124 sts for the back, 45 (49) 55 (59) 65 (71) 75 (81) 87 sts for the right sleeve and 31 (35) 39 (42) 46 (51) 54 (57) 62 sts for the right front.

5 Body

- Knit across the left front side until first left sleeve marker (31 (35) 39 (42) 46 (51) 54 (57) 62 sts). Remove marker. Place the next 45 (49) 55 (59) 65 (71) 75 (81) 87 sts on hold on a spare cable or leftover yarn (left sleeve sts). Remove marker. Cast on with backward loop cast-on method 4 (4) 4 (6) 6 (6) 8 (10) 8 sts. Knit across the back until the first right sleeve marker (62 (70) 78 (84) 92 (102) 108 (114) 124 sts). Remove marker. Place the next 45 (49) 55 (59) 65 (71) 75 (81) 87 sts on hold on a spare cable or leftover yarn (right sleeve sts). Remove marker. Cast on with backward loop cast-on method 4 (4) 4 (6) 6 (6) 8 (10) 8 sts. Knit across the right front side until BOR (31 (35) 39 (42) 46 (51) 54 (57) 62 sts). You have 132 (148) 164 (180) 196 (216) 232 (248) 264 sts on your needles.
- Move the BOR marker to the middle of the new sts at the left armhole.
- Knit in the round for 46 (46) 43 (41) 40 (37) 36 (33) 32 rounds or approximately 21 (21) 19.5 (18.5) 18 (17) 16.5 (15) 14.5 cm [$8\frac{1}{4}$ ($8\frac{1}{4}$) $7\frac{3}{4}$ ($7\frac{1}{4}$) 7 ($6\frac{3}{4}$) $6\frac{1}{2}$ ($5\frac{3}{4}$)"] as measured from armhole or continue knitting to 5 cm [2"] less than desired final length. Be aware that lengthening will require more yarn.

Option 1: half-twisted rib. With 5 mm [US 8] needles, you will knit in half-twisted rib in the round for 13 rounds or approximately 5 cm [2"] as follows.

- Round 1: *K1 tbl, P1* repeat for the entire round.
- Repeat Round 1, 12 **more** times for a total of 13 times.

You will now do an Italian bind-off for half-twisted rib (see techniques). First, stitches are prepared by twisting the knit stitches and then bound off with Italian bind-off. To facilitate the process of twisting the stitches you can switch to smaller needles.

- *SL1 tbl, SL1* repeat for the entire round.
- Break the yarn, leaving a tail that is at least 3 times the circumference of the body.
- Bind-off with Italian bind-off.

Option 2: i-cord edge. You will continue knitting in the round before binding off with an i-cord edge.

- With 6 mm [US 10] needles, continue knitting in the round for 9 additional rounds or until there is approximately 25 (25) 23.5 (22.5) 22 (21) 20.5 (19) 18.5 cm [$9\frac{3}{4}$ ($9\frac{3}{4}$) $9\frac{1}{4}$ ($8\frac{3}{4}$) $8\frac{3}{4}$ ($8\frac{1}{4}$) 8 ($7\frac{1}{2}$) $7\frac{1}{4}$ "] as measured from armhole or continue knitting to 1 cm [$1\frac{1}{2}$ "] less than desired final length. Be aware that lengthening will require more yarn.

You will now start the i-cord bind-off with the same needles. For a slightly more cinched bottom i-cord, you can also choose to go down a needle size.

- With the same needles, cast on 3 sts on the left needle with the knitted cast-on method.
- *K2, K2tog tbl, slip 3 sts back to the left needle* repeat for the entire round.

There are 3 sts left on the needles.

- Break the yarn, leaving a tail that is around 30 cm [12"] long.
- Graft the remaining stitches with the grafting for i-cord in the round method.

6 Sleeves

The sleeves are worked in the round on 6 mm [US 10] needles and shaped with decreases.

- Place stitches for right sleeve back on 6 mm [US 10] needles and pick up 5 (5) 5 (7) 7 (7) 9 (11) 9 sts in between the cast-on sts at armhole (see picking up stitches technique).
- Place BOR marker before the central stitch (in the middle of the newly picked up stitches) at armhole.

You have 50 (54) 60 (66) 72 (78) 84 (92) 96 sts on your needles.

You will now knit in the round in stockinette while at the same time working a decrease round (DR) every 14 (12) 7 (7) 6 (5) 4 (4) 4 rounds.

- Step 1: Knit 13 (11) 6 (6) 5 (4) 3 (3) 3 rounds.
- DR: K1, K2tog, knit until 2 sts remain, K2togL. (2 sts decreased)
- Repeat Step 1 and DR, 5 (6) 11 (11) 13 (16) 20 (20) 20 **more** times for a total of 6 (7) 12 (12) 14 (17) 21 (21) 21 times.

There are 38 (40) 36 (42) 44 (44) 42 (50) 54 sts left on the needles and the sleeve measures approximately 38 cm [15 "] from armhole.

Option 1: half-twisted rib. With 5 mm [US 8] needles, you will knit in half-twisted rib in the round for 13 rounds or approximately 5 cm [2 "] as follows.

- Round 1: *K1 tbl, P1* repeat for the entire round.
- Repeat Round 1, 12 **more** times for a total of 13 times.

You will now do an Italian bind-off for half-twisted rib (see techniques). First, stitches are prepared by twisting the knit stitches and then bound off with Italian bind-off. To facilitate the process of twisting the stitches you can switch to smaller needles.

- *SL1 tbl, SL1* repeat for the entire round.
- Break the yarn, leaving a tail that is at least 3 times the circumference of the sleeve.
- Bind-off with Italian bind-off.

Option 2: i-cord edge. You will continue knitting in the round before binding off with an i-cord edge.

- With 6 mm [US 10] needles, continue knitting in the round for 9 additional rounds or until there is approximately 42 (42) 42 (42) 42 (42) 42 (42) 42 cm [16½ (16½) 16½ (16½) 16½ (16½) 16½ (16½) 16½ "] as measured from armhole or continue knitting to 1 cm [½ "] less than desired final length. Be aware that lengthening will require more yarn.
- With the same needles, cast on 3 sts on the left needle with the knitted cast-on method.
- *K2, K2tog tbl, slip 3 sts back to the left needle* repeat for the entire round.

There are 3 sts left on the needles.

- Break the yarn, leaving a tail that is around 30 cm [12 "] long.
- Graft the remaining stitches with the grafting for i-cord in the round method.

- Repeat for the left sleeve.

7 Collar

For this step, to achieve the neatest finish, it is recommended to divide the collar into different sections: the back of the neck, the shoulders, the bottom of the collar and the 3 different slopes with different German short rows frequencies. You can place stitch markers as delimiters of those sections.

Option 1: half-twisted rib. With 5 mm [US 8] needles.

Option 2: i-cord edge. With 6 mm [US 10] needles.

- Pick up 88 (88) 88 (88) 88 (92) 96 (96) 96 sts for the collar by using the picking up stitches technique when applicable.

Suggestion of sts distribution: pick up 28 (28) 28 (28) 28 (30) 32 (32) 32 sts along the back of the neck, then 13 (13) 13 (13) 13 (13) 13 (13) 13 sts along the left shoulder rows, 1 (1) 1 (1) 1 (1) 1 (1) 1 sts along the left increase, 4 (4) 4 (4) 4 (4) 5 (5) 5 sts along the first slope of GSR, 5 (5) 5 (5) 5 (5) 5 (5) 5 sts along the second slope, 3 (3) 3 (3) 3 (3) 3 (3) 3 sts in the 3 sts of the last GSR, 8 (8) 8 (8) 8 (10) 10 (10) 10 sts in between the sts for the bottom of the neck, repeat for the right side as follows: 3 (3) 3 (3) 3 (3) 3 (3) 3 sts in the 3 sts of the last GSR, 5 (5) 5 (5) 5 (5) 5 (5) 5 sts along the second slope, 4 (4) 4 (4) 4 (4) 5 (5) 5 sts along the first slope of GSR, 1 (1) 1 (1) 1 (1) 1 (1) 1 sts along the right increase, and finally 13 (13) 13 (13) 13 (13) 13 (13) 13 sts along the right shoulder rows, PM for BOR. *Approximately this means picking up 1 st in every st and 3 sts for 4 rows for the shoulders.*

Option 1: half-twisted rib. With 5 mm [US 8] needles, you will knit in half-twisted rib in the round for 7 rounds or approximately 3.5 cm [1½ "] as follows.

- Round 1: *K1 tbl, P1* repeat for the entire round.
- Repeat Round 1, 6 **more** times for a total of 7 times.

You will now do an Italian bind-off for half-twisted rib (see techniques). First, stitches are prepared by twisting the knit stitches and then bound off with Italian bind-off. To facilitate the process of twisting the stitches you can switch to smaller needles.

- *SL1 tbl, SL1* repeat for the entire round.
- Break the yarn, leaving a tail that is at least 3 times the circumference of the collar.
- Bind-off with Italian bind-off.

Option 2: i-cord edge. You will now knit an i-cord edge for the collar while binding off the stitches.

- With 6 mm [US 10] needles, cast on 3 sts on the left needle with the knitted cast-on method.
- *K2, K2tog tbl, slip 3 sts back to the left needle* repeat for the entire round.

There are 3 sts left on the needles.

- Break the yarn, leaving a tail that is around 30 cm [12 "] long.
- Graft the remaining stitches with the grafting for i-cord in the round method.

8 Finishing

Weave in the ends and wet block to measurements.

Take your time to lay it flat and check the measurements according to the finished product measurements so that the project keeps an even gauge and does not lose its shape. To lay it flat with this construction: Pinch at the middle of the top of the sleeves and at the intersection between the shoulder seam and collar.

**And that's it! Thanks for knitting along! I hope you are happy with the final piece.
Take care of your knit and wear it with pride.**

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A Charts

SIZE 1 - Sleeves and Neckline Shaping

	GSR	right front 15	right sleeve 13	back 56	left sleeve 13	left front 15	GSR
	+1		M1R M1L		M1R M1L		← 1 (RS)
2 (WS) →							+1
	+1		M1R M1L		M1R M1L		← 3
4 →							+1
	+2		M1R M1L		M1R M1L		← 5
6 →							+2
	+2		M1R M1L		M1R M1L		← 7
8 →							+2
	+3		M1R M1L		M1R M1L		← 9
10 →							+3
		24	23	56	23	24	

SIZE 1 - Sleeves and Armhole Shaping

right front 28	right sleeve 39	back 56	left sleeve 39	left front 28	
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 1
					← 2
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 3
					← 4
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 5
					← 6
31	45	62	45	31	

SIZE 2 - Sleeves and Neckline Shaping

	GSR	right front 16	right sleeve 13	back 58	left sleeve 13	left front 16	GSR
	+1		M1R M1L		M1R M1L		← 1 (RS)
2 (WS) →							+1
	+1		M1R M1L		M1R M1L		← 3
4 →							+1
	+2		M1R M1L		M1R M1L		← 5
6 →							+2
	+2		M1R M1L		M1R M1L		← 7
8 →							+2
	+3		M1R M1L		M1R M1L		← 9
10 →							+3
		25	23	58	23	25	

SIZE 2 - Sleeves and Armhole Shaping

right front 29	right sleeve 37		back 58		left sleeve 37		left front 29	
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 1
								← 2
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 3
								← 4
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 5
								← 6
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 7
								← 8
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 9
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 10
35	49		70		49		35	

SIZE 3 - Sleeves and Neckline Shaping

GSR	right front 17	right sleeve 13		back 60	left sleeve 13		left front 17	GSR
+1		M1R	M1L		M1R	M1L		← 1 (RS)
2 (WS) →								+1
+1		M1R	M1L		M1R	M1L		← 3
4 →								+1
+2		M1R	M1L		M1R	M1L		← 5
6 →								+2
+2		M1R	M1L		M1R	M1L		← 7
8 →								+2
+3		M1R	M1L		M1R	M1L		← 9
10 →								+3
	26	23		60	23		26	

SIZE 3 - Sleeves and Armhole Shaping

right front 30	right sleeve 39		back 60		left sleeve 39		left front 30	
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 1
								← 2
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 3
								← 4
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 5
								← 6
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 7
M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 8
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 9
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 10
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 11
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 12
39	55		78		55		39	

SIZE 4 - Sleeves and Neckline Shaping

	GSR	right front 18	right sleeve 13	back 62	left sleeve 13	left front 18	GSR
	+1		M1R M1L		M1R M1L		← 1 (RS)
2 (WS) →							+1
	+1		M1R M1L		M1R M1L		← 3
4 →							+1
	+2		M1R M1L		M1R M1L		← 5
6 →							+2
	+2		M1R M1L		M1R M1L		← 7
8 →							+2
	+3		M1R M1L		M1R M1L		← 9
10 →							+3
		27	23	62	23	27	

SIZE 4 - Sleeves and Armhole Shaping

right front 31	right sleeve 41	back 62	left sleeve 41	left front 31	
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 1
					← 2
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 3
M1L, K1		K1, M1R M1L, K1		K1, M1R	← 4
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 5
M1L, K1		K1, M1R M1L, K1		K1, M1R	← 6
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 7
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 8
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 9
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 10
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 11
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 12
42	59	84	59	42	

SIZE 5 - Sleeves and Neckline Shaping

	GSR	right front 19	right sleeve 13	back 64	left sleeve 13	left front 19	GSR
	+1		M1R M1L		M1R M1L		← 1 (RS)
2 (WS) →							+1
	+1		M1R M1L		M1R M1L		← 3
4 →							+1
	+2		M1R M1L		M1R M1L		← 5
6 →							+2
	+2		M1R M1L		M1R M1L		← 7
8 →							+2
	+3		M1R M1L		M1R M1L		← 9
10 →							+3
		28	23	64	23	28	

SIZE 5 - Sleeves and Armhole Shaping

right front 32		right sleeve 41		back 64		left sleeve 41		left front 32	
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 1
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 2
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 3
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 4
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 5
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 6
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 7
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 8
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 9
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 10
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 11
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 12
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 13
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 14
46		65		92		65		46	

SIZE 6 - Sleeves and Neckline Shaping

GSR	right front 19	right sleeve 13		back 66	left sleeve 13		left front 19	GSR
+1		M1R	M1L		M1R	M1L		← 1 (RS)
2 (WS) →								+1
+1		M1R	M1L		M1R	M1L		← 3
4 →								+1
+2		M1R	M1L		M1R	M1L		← 5
6 →								+2
+2		M1R	M1L		M1R	M1L		← 7
8 →								+2
+3		M1R	M1L		M1R	M1L		← 9
10 →								+3
	28	23		66	23		28	

SIZE 6 - Sleeves and Armhole Shaping

right front 33		right sleeve 41		back 66		left sleeve 41		left front 33	
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 1
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 2
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 3
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 4
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 5
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 6
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 7
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 8
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 9
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 10
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 11
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 12
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 13
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 14
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 15
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 16
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 17
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 18
51		71		102		71		51	

SIZE 7 - Sleeves and Neckline Shaping

	GSR	right front 19	right sleeve 13	back 68	left sleeve 13	left front 19	GSR
	+1		M1R M1L		M1R M1L		← 1 (RS)
2 (WS) →							+1
	+1		M1R M1L		M1R M1L		← 3
4 →							+1
	+1		M1R M1L		M1R M1L		← 5
6 →							+1
	+2		M1R M1L		M1R M1L		← 7
8 →							+2
	+2		M1R M1L		M1R M1L		← 9
10 →							+2
	+3		M1R M1L		M1R M1L		← 11
12 →							+3
		29	25	68	25	29	

SIZE 7 - Sleeves and Armhole Shaping

right front 34	right sleeve 41	back 68	left sleeve 41	left front 34	
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 1
M1L, K1		K1, M1R M1L, K1		K1, M1R	← 2
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 3
M1L, K1		K1, M1R M1L, K1		K1, M1R	← 4
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 5
M1L, K1		K1, M1R M1L, K1		K1, M1R	← 6
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 7
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 8
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 9
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 10
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 11
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 12
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 13
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 14
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 15
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 16
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 17
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 18
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 19
M1L, K1	M1R M1L	K1, M1R M1L, K1	M1R M1L	K1, M1R	← 20
54	75	108	75	54	

SIZE 8 - Sleeves and Neckline Shaping

	GSR	right front 20	right sleeve 13	back 70	left sleeve 13	left front 20	GSR
	+1		M1R M1L		M1R M1L		← 1 (RS)
2 (WS) →							+1
	+1		M1R M1L		M1R M1L		← 3
4 →							+1
	+1		M1R M1L		M1R M1L		← 5
6 →							+1
	+2		M1R M1L		M1R M1L		← 7
8 →							+2
	+2		M1R M1L		M1R M1L		← 9
10 →							+2
	+3		M1R M1L		M1R M1L		← 11
12 →							+3
		30	25	70	25	30	

SIZE 8 - Sleeves and Armhole Shaping

right front 35		right sleeve 43		back 70		left sleeve 43		left front 35		
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 1
M1L, K1			K1, M1R	M1L, K1			K1, M1R			← 2
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 3
M1L, K1			K1, M1R	M1L, K1			K1, M1R			← 4
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 5
M1L, K1			K1, M1R	M1L, K1			K1, M1R			← 6
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 7
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 8
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 9
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 10
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 11
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 12
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 13
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 14
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 15
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 16
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 17
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 18
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 19
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 20
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 21
M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R			← 22
57	81		114		81		57			

SIZE 9 - Sleeves and Neckline Shaping

GSR	right front 21	right sleeve 13		back 72	left sleeve 13		left front 21	GSR
+1		M1R	M1L		M1R	M1L		← 1 (RS)
2 (WS) →								+1
+1		M1R	M1L		M1R	M1L		← 3
4 →								+1
+1		M1R	M1L		M1R	M1L		← 5
6 →								+1
+2		M1R	M1L		M1R	M1L		← 7
8 →								+2
+2		M1R	M1L		M1R	M1L		← 9
10 →								+2
+3		M1R	M1L		M1R	M1L		← 11
12 →								+3
	31	25		72	25		31	

SIZE 9 - Sleeves and Armhole Shaping

right front 36		right sleeve 41		back 72		left sleeve 41		left front 36	
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 1
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 2
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 3
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 4
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 5
	M1L, K1			K1, M1R	M1L, K1			K1, M1R	← 6
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 7
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 8
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 9
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 10
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 11
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 12
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 13
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 14
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 15
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 16
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 17
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 18
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 19
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 20
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 21
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 22
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 23
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 24
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 25
	M1L, K1	M1R	M1L	K1, M1R	M1L, K1	M1R	M1L	K1, M1R	← 26
62		87		124		87		62	