

# Ideal Crochet Sphere

---



---

By Merold Saffa, Sydney Thu, Camelia Au, Aidan Self

## Formulation

$\lambda$  = number of rows

$1 \leq k \leq \lambda$ ; the iteration of each row

$R = \frac{\lambda}{\pi}$ ; radius of the ideal sphere

$r_k = R\sqrt{1 - \left(\frac{2k-1}{\lambda} - 1\right)^2}$ ; radius of each row

$C_k = 2\pi r_k$ ; number of stitches for the kth row

(This formulation was developed from circular cross-sections that represent the crochet rows of a sphere with a certain radius R)

## Materials

- Super Saver Yarn or another Medium Weight (Gauge 4) Yarn
- [Crochet hook](#) (Size 4.5-5.5)
- [Embroidery needles](#)
- [Stitch marker](#)
- [Stuffing](#)

## Necessary Techniques

- [Magic Ring](#)
- [Single Crochet](#)
- [Increase](#)
- [Decrease](#)
- [Close Openings](#)

## Abbreviations for Patterns

sc = single crochet

inc = 2 single crochet in same stitch

dec = single crochet decrease

even = single crochet in each stitch around.

[~~~]\*n = repeat the pattern “~~~” n times

Example: 5, inc, 5 (12) = "Sc in each of next 5 stitches. Inc in next stitch. Sc in each of the next 5 stitches. (12 stitches in this row)."

**Note:** Before closing your crochet sphere, here's [how to effectively stuff sphere](#)

### **8 Row Sphere:**

Row 1: 8 sc into Magic Ring (8)

Row 2: [sc, inc]\*4 (12)

Row 3: 3 sc, [inc, 2]\*3 (15)

Row 4: 9, inc, 5 (16)

Row 5: even (16)

Row 6: 5, dec, 9 (15)

Row 7: [2, dec]\*3, 3 sc (12)

Row 8: [dec, sc]\*4 (8)

### **10 Row Sphere:**

Row 1: 9 sc into Magic Ring (9)

Row 2: [inc, sc]\*4, inc (14)

Row 3: [3, inc]\*3, 2 sc (17)

Row 4: [6, inc]\*2, 3 sc (19)

Row 5: 6, inc, 12 (20)

Row 6: even (20)

Row 7: 12, dec, 6 (19)

Row 8: 3 sc, [dec, 6]\*2 (17)

Row 9: 2 sc, [dec, 3]\*3 (14)

Row 10: dec, [sc, dec]\*4 (9)

### **12 Row Sphere:**

Row 1: 10 sc into Magic Ring (10)

Row 2: [inc, sc, inc]\*3, sc (16)

Row 3: [2, inc, 2]\*3, sc (19)

Row 4: [inc, 5]\*3, sc(22)

Row 5: 6, inc, 15(23)

Row 6: 11, inc, 11(24)

Row 7: even (24)

Row 8: 11, dec, 11 (23)

Row 9: 13, dec, 8 (22)

Row 10: sc, [5, dec]\*3 (19)

Row 11: sc, [2, dec, 2]\*3 (16)

Row 12: sc, [dec, sc, dec]\*3 (10)

## **14 Row Sphere:**

Row 1: 10 sc into Magic Ring (10)

Row 2: [inc, sc, inc]\*3, inc (17)

Row 3: [2, inc, 2]\*3, inc, sc (21)

Row 4: [inc, 6]\*3 (24)

Row 5: [7, inc]\*2, 8 sc(26)

Row 6: 8, inc, 17(27)

Row 7: 13, inc, 13 (28)

Row 8: even (28)

Row 9: 13, dec, 13 (27)

Row 10: 17, dec, 8 (26)

Row 11: 8 sc, [dec, 7]\*2 (24)

Row 12: [6, dec]\*3 (21)

Row 13: sc, dec, [2, dec, 2]\*3 (17)

Row 14: dec, [dec, sc, dec]\*3 (10)

## **16 Row Sphere:**

Row 1: 11 sc into Magic Ring (11)

Row 2: inc, [inc, sc, inc]\*3, inc (19)

Row 3: [inc, 5]\*3, inc (23)

Row 4: [4, inc, 2]\*3, 2 sc (26)

Row 5: [inc, 7]\*3, 2 sc (29)

Row 6: 10, inc, 18(30)

Row 7: 12, inc, 17(31)

Row 8: 14, inc, 16(32)

Row 9: even (32)

Row 10: 16, dec, 14 (31)

Row 11: 17, dec, 12 (30)

Row 12: 18, dec, 10 (29)

Row 13: 2 sc, [7, dec]\*3 (26)

Row 14: 2 sc, [2, dec, 4]\*3 (23)

Row 15: dec, [5, dec]\*3 (19)

Row 16: dec, [dec, sc, dec]\*3, dec (11)

## **18 Row Sphere:**

Row 1: 12 sc into Magic Ring (12)

Row 2: [inc, sc, inc]\*4 (20)

Row 3: inc, [2, inc, 3]\*3, inc (25)

Row 4: [7, inc]\*3, sc (28)

Row 5: [inc, 9]\*3, sc (31)

Row 6: [7, inc, 7]\*2, sc (33)

Row 7: [inc, 15]\*2, sc (35)

Row 8: even (35)

Row 9: 17, inc, 17 (36)

Row 10: even (36)

Row 11: 17, dec, 17 (35)

Row 12: even (35)

Row 13: sc, [15, dec]\*2 (33)

Row 14: sc, [7, dec, 7]\*2 (31)

Row 15: sc, [9, dec]\*3 (28)

Row 16: sc, [dec, 7]\*3 (25)

Row 17: dec, [3, dec, 2]\*3, dec (20)

Row 18: [dec, sc, dec]\*4 (12)

