

THE IDEA WORKS · WEB TOOLS

Pixel Circle Guide

Printable block-by-block templates for building round things in a square world — every radius from 2 to 32. Find your size, count the blocks, and lay one block per filled square. Works for Minecraft towers, domes, and anything else on a grid.



Filled square = place one block.

Empty square = leave it open.

RADII 2 → 32

SPAN 5 → 65 blocks wide

SHAPE outline ring (thin)

The circle that looks right on a grid is the one where each block sits closest to the true radius. That's all these templates are: for every cell, round its distance from the centre — if it rounds to the radius, it's a block. Simple, and it tiles perfectly.

How to use these templates

1. Pick your span. Each template is labelled by radius and by its full span in blocks (span = $2 \times \text{radius} + 1$). If you know how wide you want the circle, match the span; if you know the radius, match that.

2. Find the centre. The template is symmetric — the middle cell is the centre of your circle. Start there and count outward so the shape stays centred on your build.

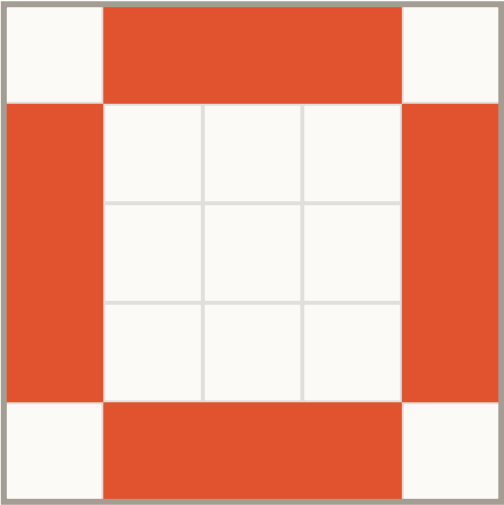
3. Lay the ring. Place one block on every filled square, leaving the empty ones open. The **block count** on each template tells you exactly how many blocks a full ring takes — handy for gathering materials first.

4. Stack for towers and domes. Repeat the same ring on each layer for a cylinder. For a dome, step down a radius every few layers.

Tip: odd spans (from these radii) always have a single centre block, which makes them easy to line up with a doorway or pillar.

r2

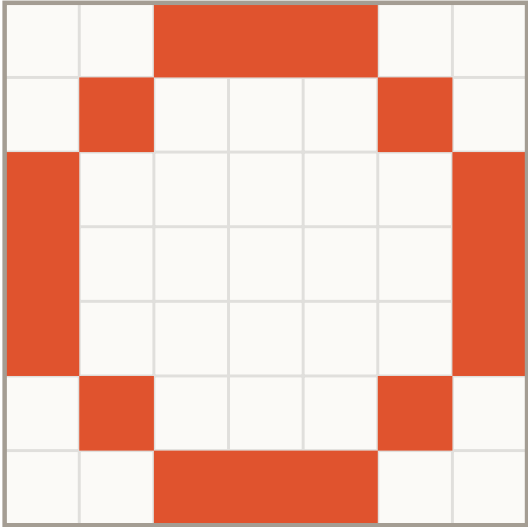
5×5 span
12 blocks



A 5x5 grid with a red border and a white center. The red blocks are located at the top and bottom rows (columns 2-4) and the left and right columns (rows 2-4). The center is a 3x3 white area.

r3

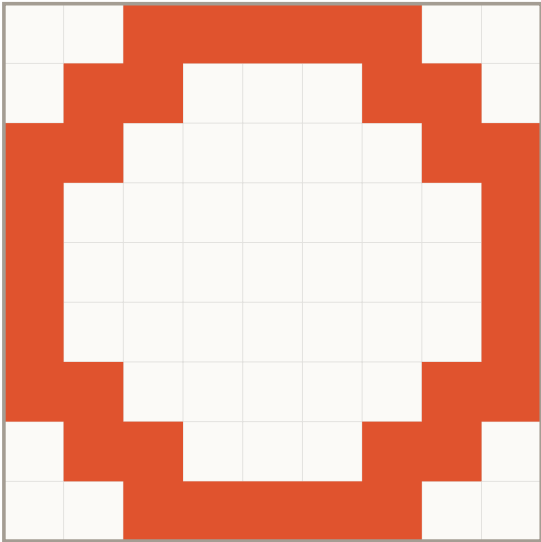
7×7 span
16 blocks



A 7x7 grid with a red border and a white center. The red blocks are located at the top and bottom rows (columns 3-5) and the left and right columns (rows 3-5). The center is a 5x5 white area.

r4

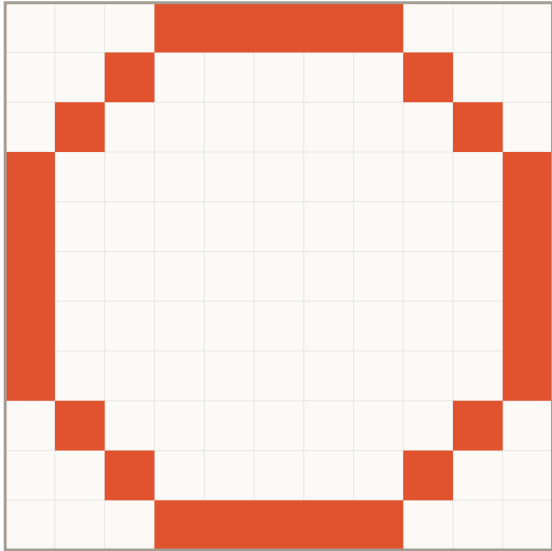
9×9 span
32 blocks



A 9x9 grid with a red border and a white center. The red blocks are located at the top and bottom rows (columns 3-7) and the left and right columns (rows 3-7). The center is a 7x7 white area.

r5

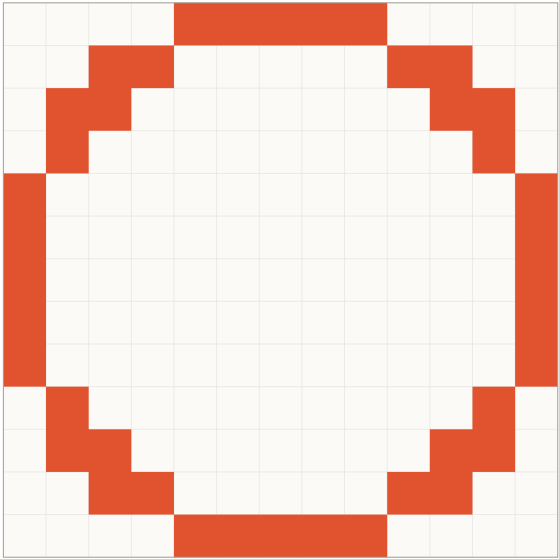
11×11 span
28 blocks



An 11x11 grid with a red border and a white center. The red blocks are located at the top and bottom rows (columns 4-8) and the left and right columns (rows 4-8). The center is a 9x9 white area.

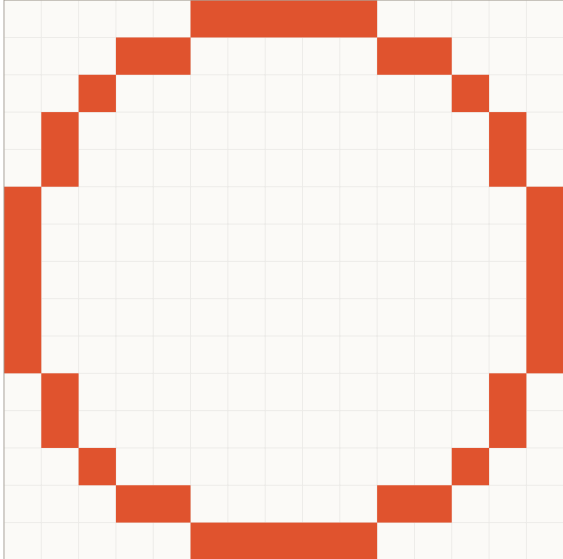
r6

13×13 span
40 blocks

A 13x13 grid with a pixel circle of radius 6. The circle is composed of 40 red blocks. The grid is 13 units wide and 13 units high. The circle is centered at (6.5, 6.5). The red blocks form a ring that is 1 block thick. The blocks are arranged in a way that the circle is as close to a true circle as possible using integer coordinates.

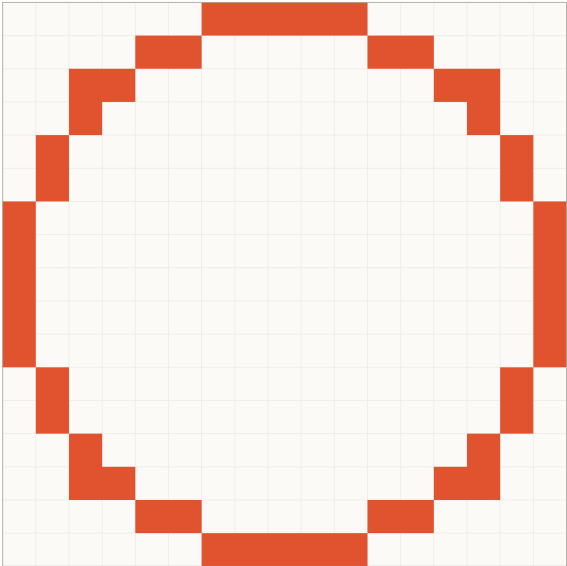
r7

15×15 span
40 blocks

A 15x15 grid with a pixel circle of radius 7. The circle is composed of 40 red blocks. The grid is 15 units wide and 15 units high. The circle is centered at (7.5, 7.5). The red blocks form a ring that is 1 block thick. The blocks are arranged in a way that the circle is as close to a true circle as possible using integer coordinates.

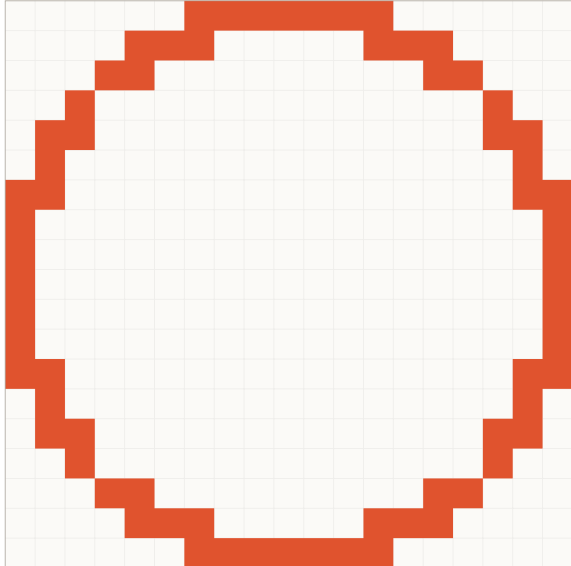
r8

17×17 span
48 blocks

A 17x17 grid with a pixel circle of radius 8. The circle is composed of 48 red blocks. The grid is 17 units wide and 17 units high. The circle is centered at (8.5, 8.5). The red blocks form a ring that is 1 block thick. The blocks are arranged in a way that the circle is as close to a true circle as possible using integer coordinates.

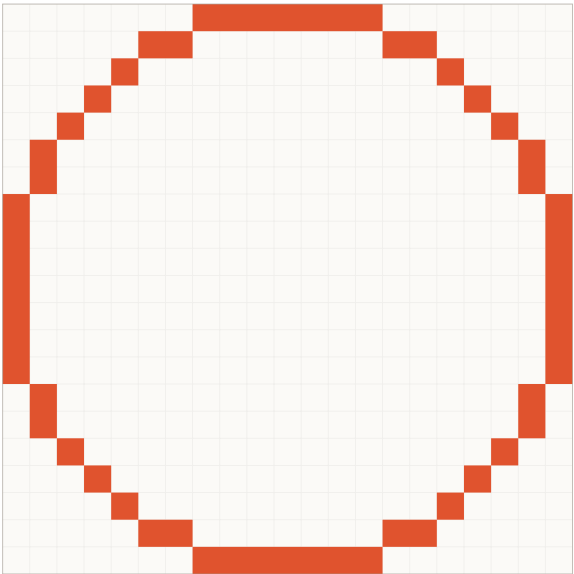
r9

19×19 span
68 blocks

A 19x19 grid with a pixel circle of radius 9. The circle is composed of 68 red blocks. The grid is 19 units wide and 19 units high. The circle is centered at (9.5, 9.5). The red blocks form a ring that is 1 block thick. The blocks are arranged in a way that the circle is as close to a true circle as possible using integer coordinates.

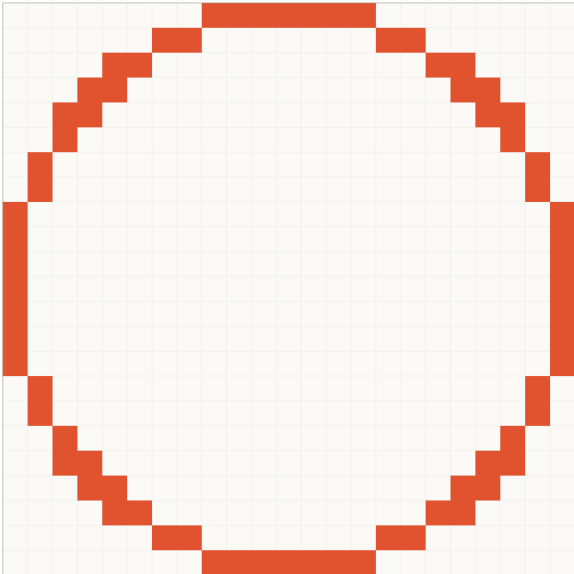
r10

21×21 span
56 blocks

A pixel circle with radius 10 is shown on a 21x21 grid. The circle is composed of orange pixels forming a ring. The grid is centered at (10, 10) with the origin (0,0) at the top-left corner. The circle's diameter is 21 units.

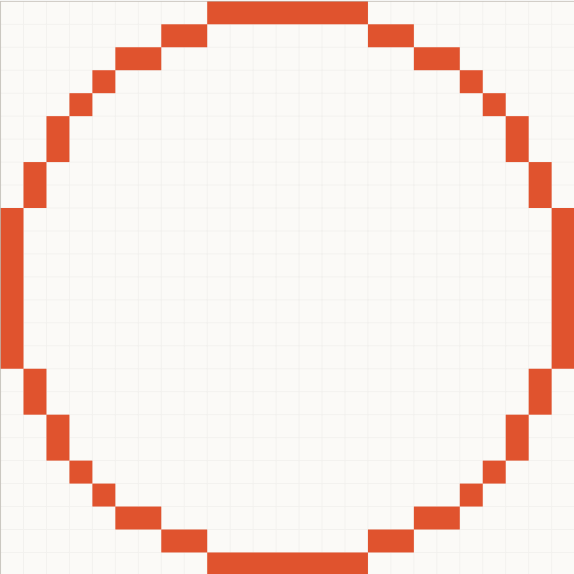
r11

23×23 span
72 blocks

A pixel circle with radius 11 is shown on a 23x23 grid. The circle is composed of orange pixels forming a ring. The grid is centered at (11, 11) with the origin (0,0) at the top-left corner. The circle's diameter is 23 units.

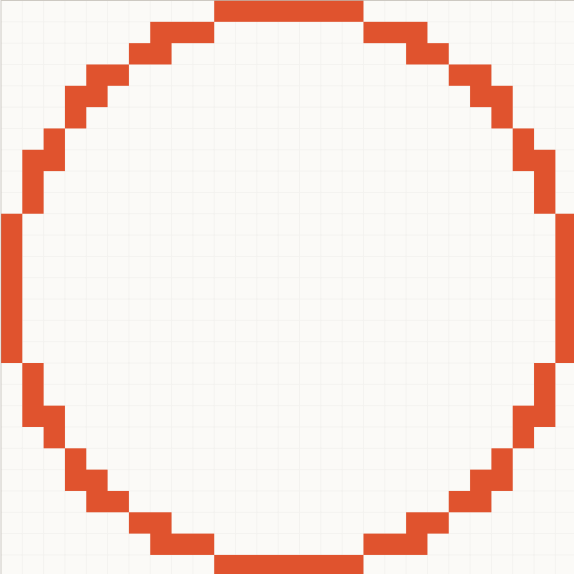
r12

25×25 span
68 blocks

A pixel circle with radius 12 is shown on a 25x25 grid. The circle is composed of orange pixels forming a ring. The grid is centered at (12, 12) with the origin (0,0) at the top-left corner. The circle's diameter is 25 units.

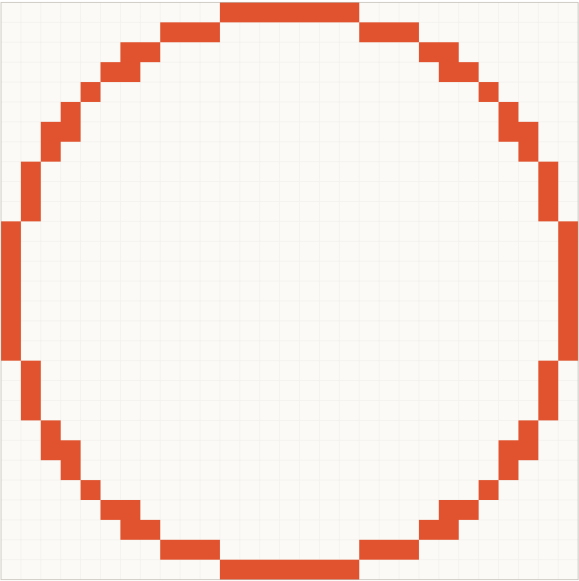
r13

27×27 span
88 blocks

A pixel circle with radius 13 is shown on a 27x27 grid. The circle is composed of orange pixels forming a ring. The grid is centered at (13, 13) with the origin (0,0) at the top-left corner. The circle's diameter is 27 units.

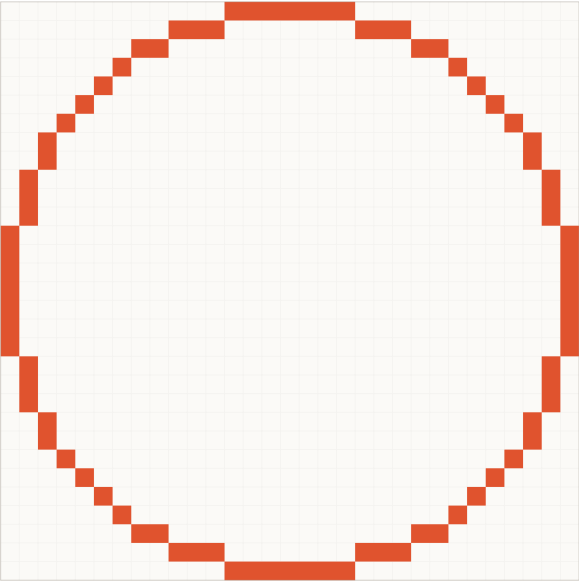
r14

29×29 span
88 blocks

A pixel circle with radius 14 is shown on a 29x29 grid. The circle is composed of orange pixels. The grid is centered at (15, 15). The circle's diameter is 29 pixels, and it is composed of 88 blocks.

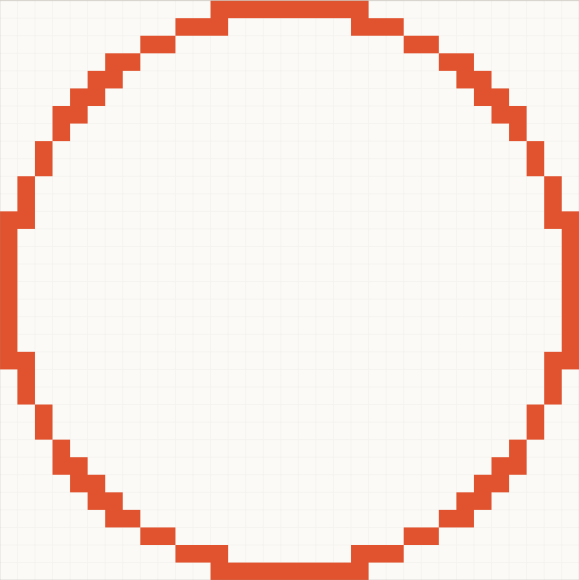
r15

31×31 span
84 blocks

A pixel circle with radius 15 is shown on a 31x31 grid. The circle is composed of orange pixels. The grid is centered at (16, 16). The circle's diameter is 31 pixels, and it is composed of 84 blocks.

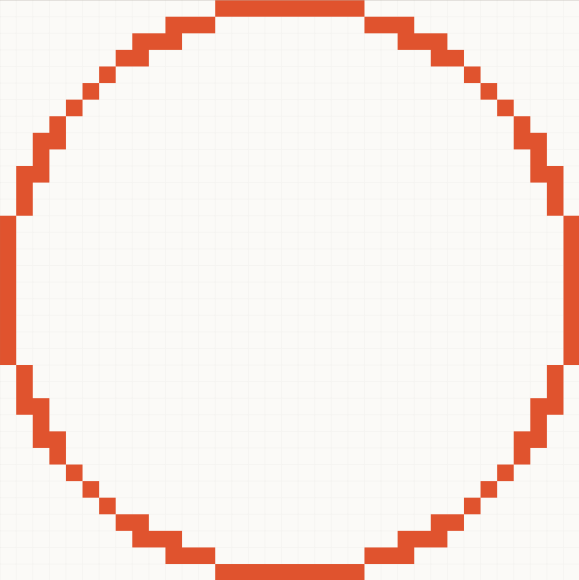
r16

33×33 span
112 blocks

A pixel circle with radius 16 is shown on a 33x33 grid. The circle is composed of orange pixels. The grid is centered at (17, 17). The circle's diameter is 33 pixels, and it is composed of 112 blocks.

r17

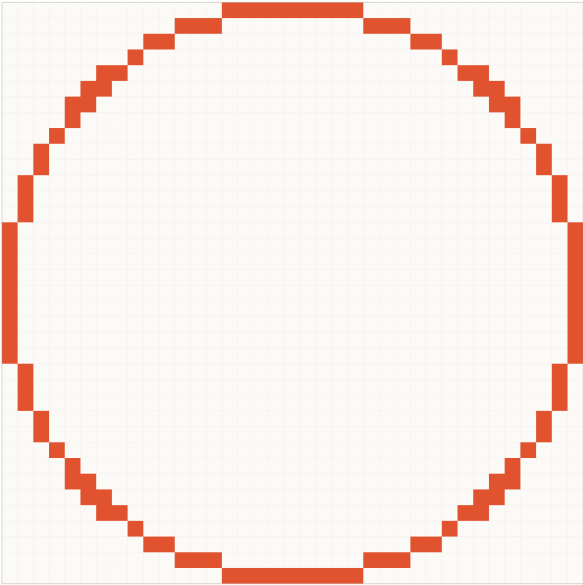
35×35 span
112 blocks

A pixel circle with radius 17 is shown on a 35x35 grid. The circle is composed of orange pixels. The grid is centered at (18, 18). The circle's diameter is 35 pixels, and it is composed of 112 blocks.

r18

37×37 span

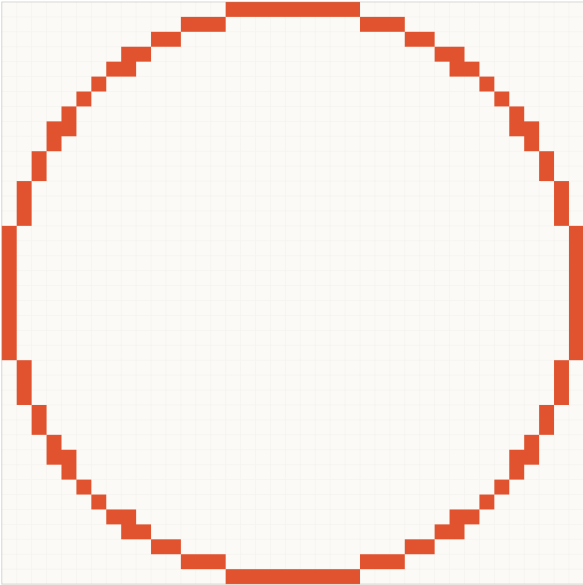
112 blocks

A pixel circle with radius 18 is shown on a 37x37 grid. The circle is composed of orange pixels forming a ring. The grid is light gray with a darker gray border.

r19

39×39 span

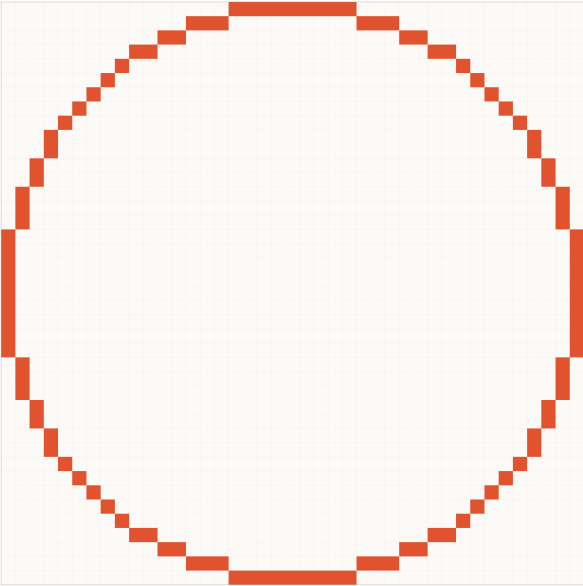
116 blocks

A pixel circle with radius 19 is shown on a 39x39 grid. The circle is composed of orange pixels forming a ring. The grid is light gray with a darker gray border.

r20

41×41 span

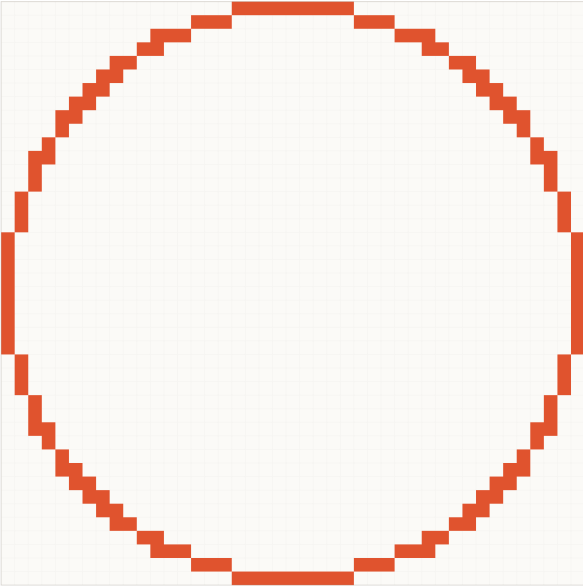
112 blocks

A pixel circle with radius 20 is shown on a 41x41 grid. The circle is composed of orange pixels forming a ring. The grid is light gray with a darker gray border.

r21

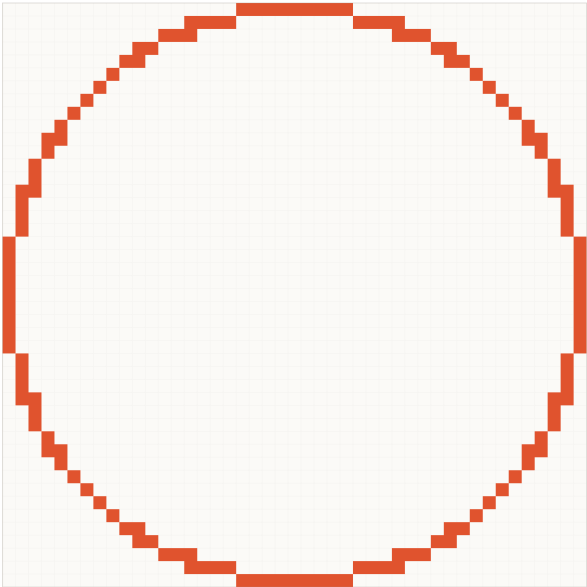
43×43 span

144 blocks

A pixel circle with radius 21 is shown on a 43x43 grid. The circle is composed of orange pixels forming a ring. The grid is light gray with a darker gray border.

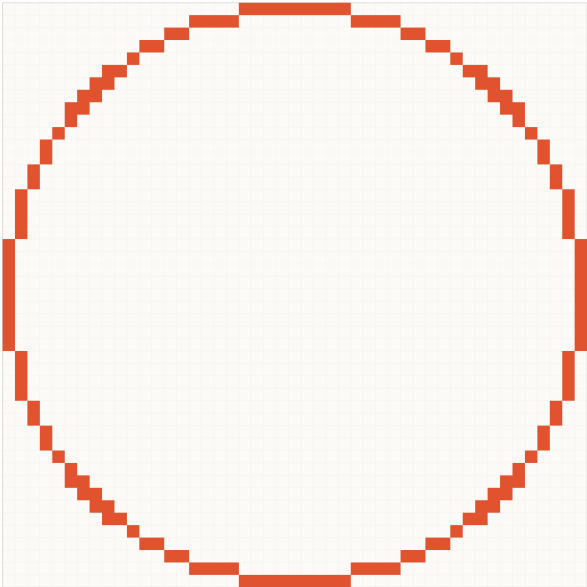
r22

45×45 span
140 blocks

A pixel circle with radius 22, rendered on a 45x45 grid. The circle is composed of orange pixels forming a single-pixel-thick ring. The grid is light gray with darker gray lines.

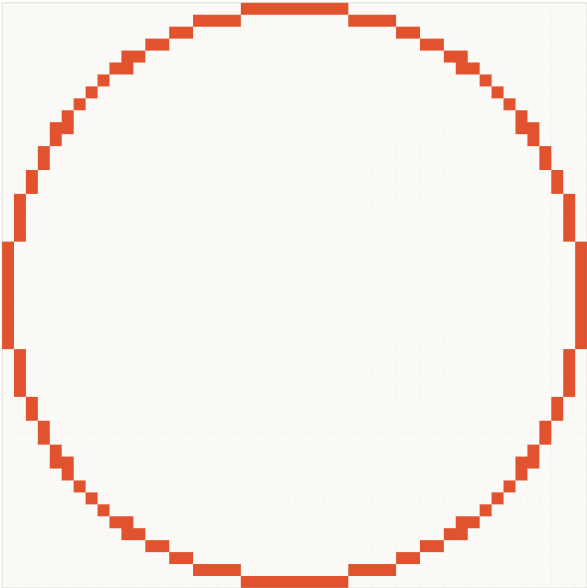
r23

47×47 span
144 blocks

A pixel circle with radius 23, rendered on a 47x47 grid. The circle is composed of orange pixels forming a single-pixel-thick ring. The grid is light gray with darker gray lines.

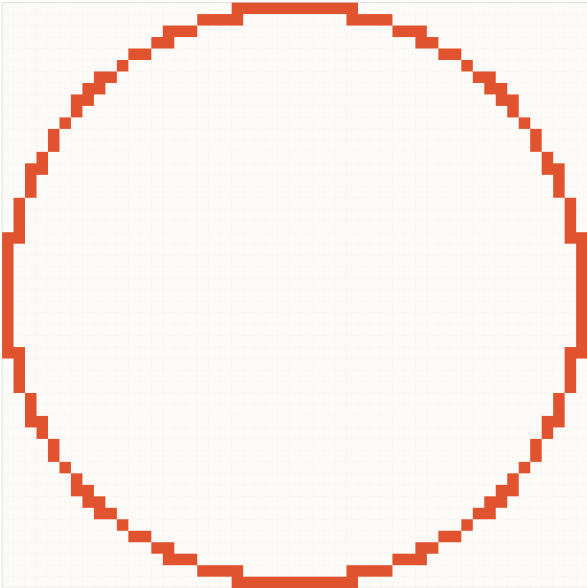
r24

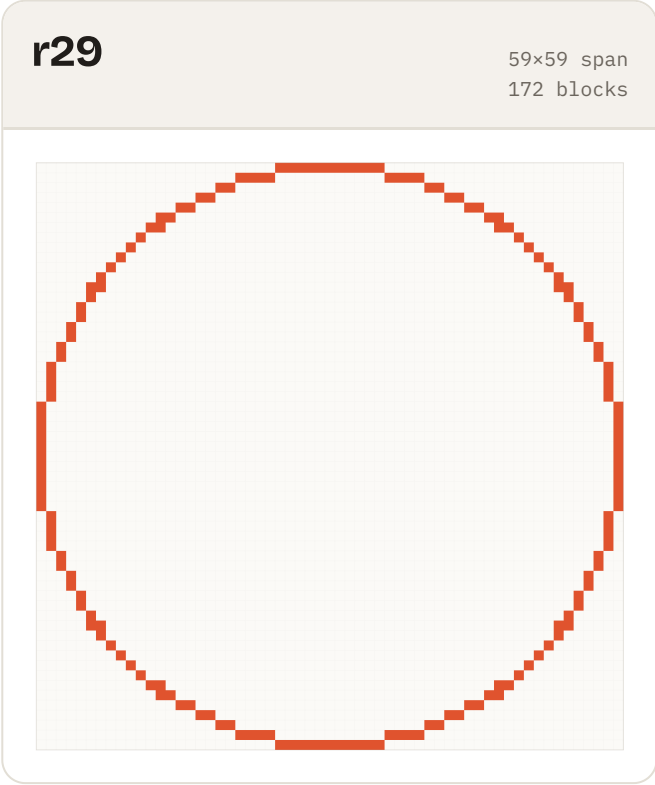
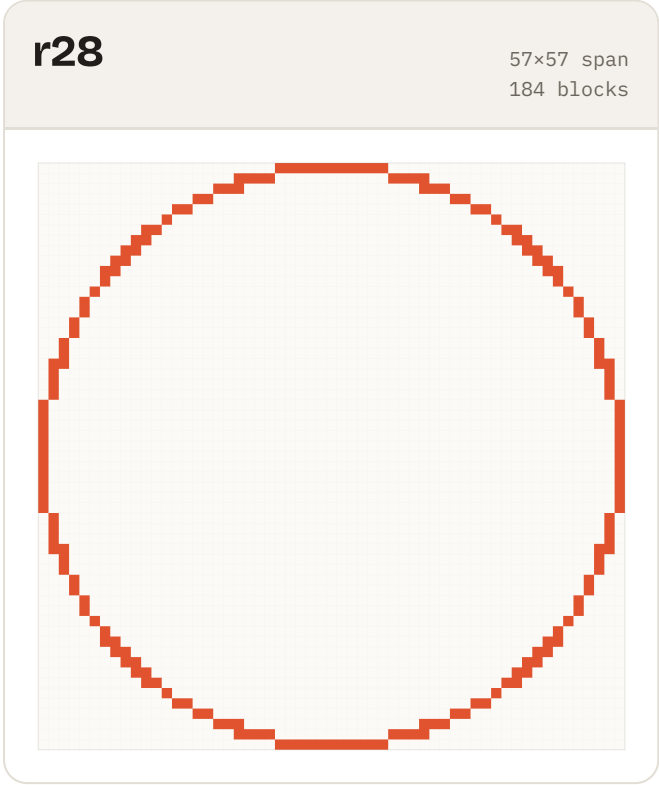
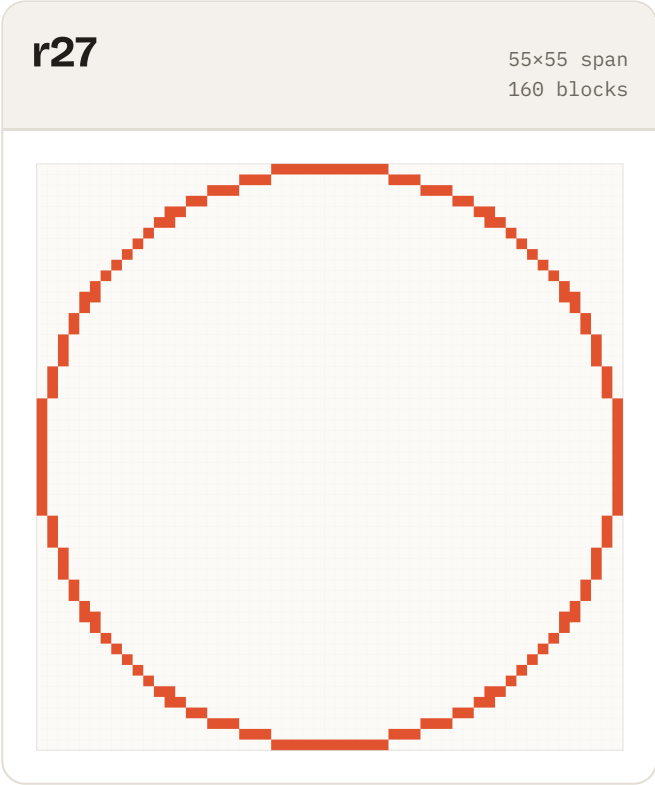
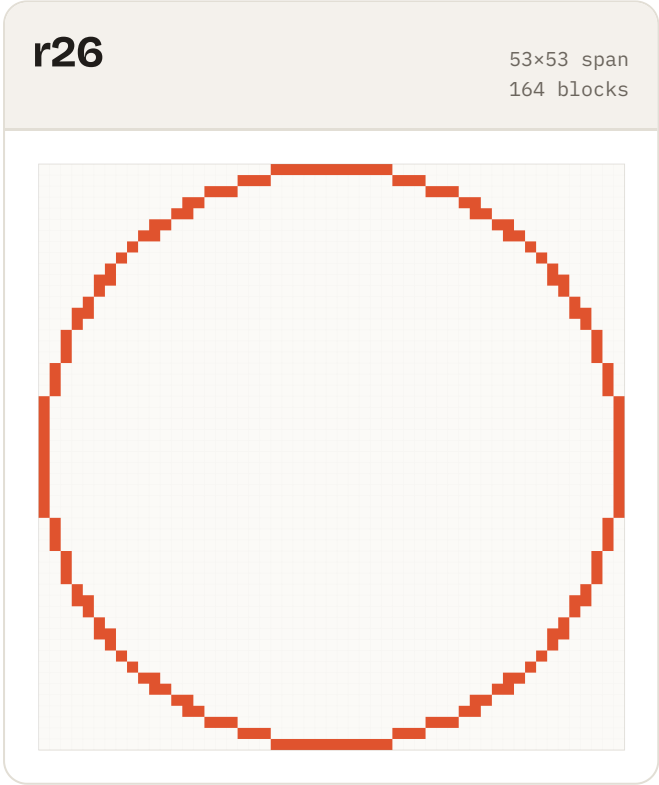
49×49 span
144 blocks

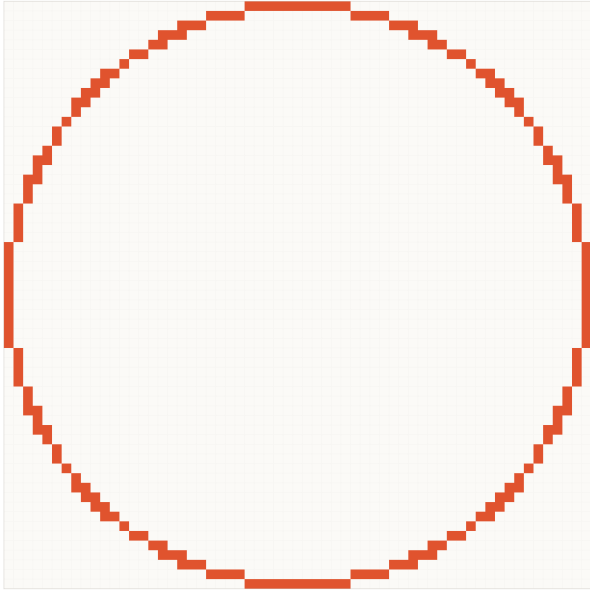
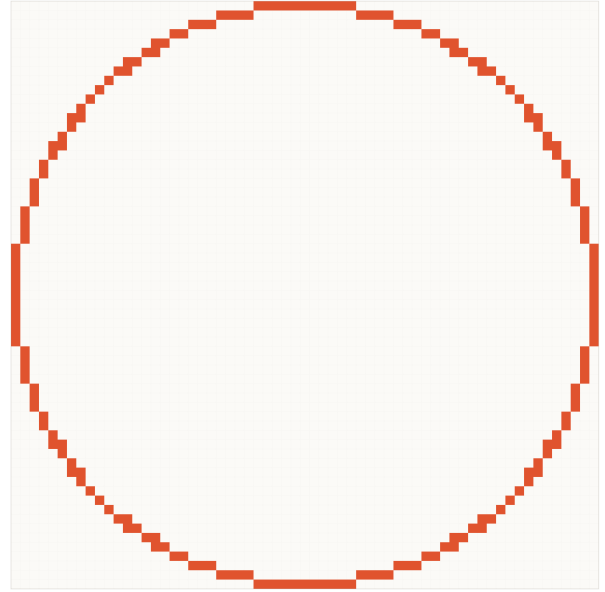
A pixel circle with radius 24, rendered on a 49x49 grid. The circle is composed of orange pixels forming a single-pixel-thick ring. The grid is light gray with darker gray lines.

r25

51×51 span
168 blocks

A pixel circle with radius 25, rendered on a 51x51 grid. The circle is composed of orange pixels forming a single-pixel-thick ring. The grid is light gray with darker gray lines.



r3061×61 span
200 blocks**r31**63×63 span
192 blocks**r32**65×65 span
188 blocks