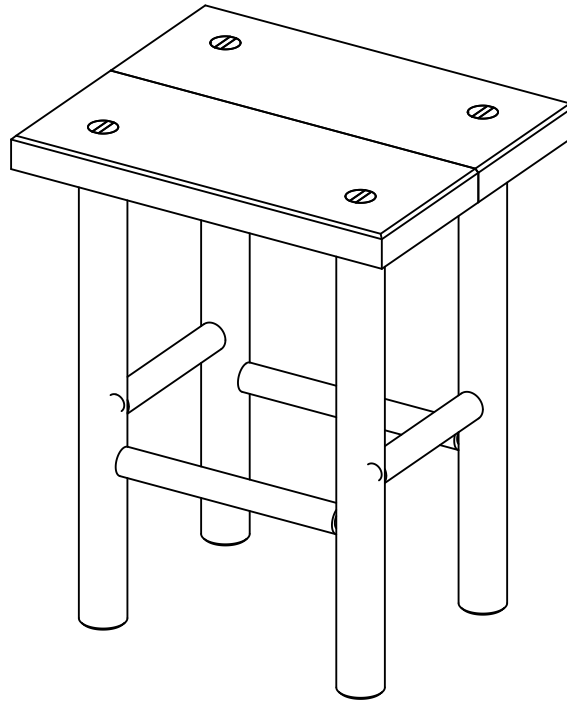


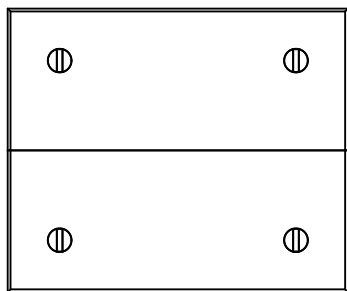
Stool



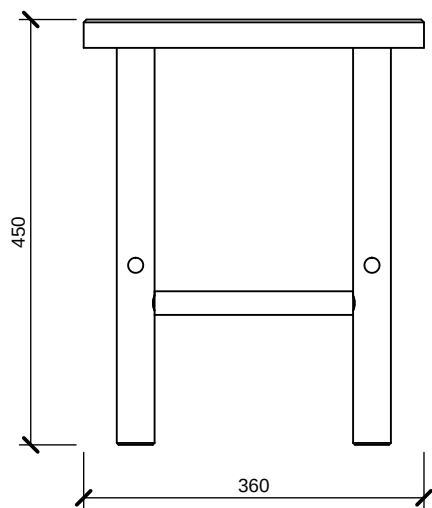
parts	14 (5 different)
overall	360 x 300 x 450 (W x D x H)
material	oak
date	2026-10-25
made with	woodwright 0.9.0

Contents

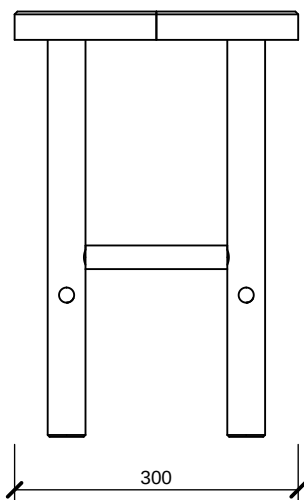
Drawings	3
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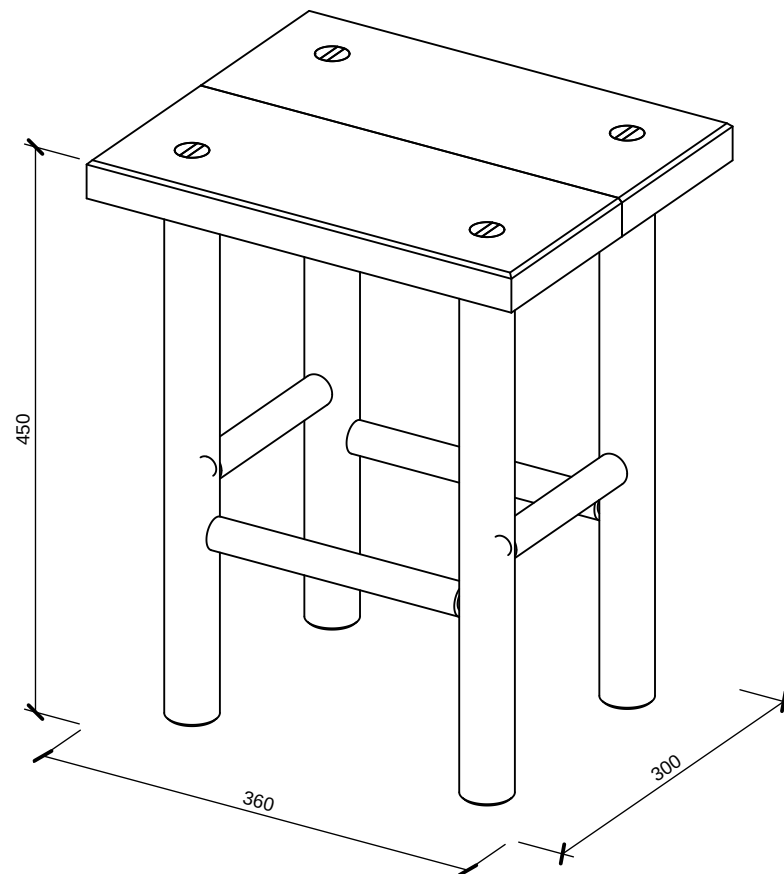
TOP



FRONT

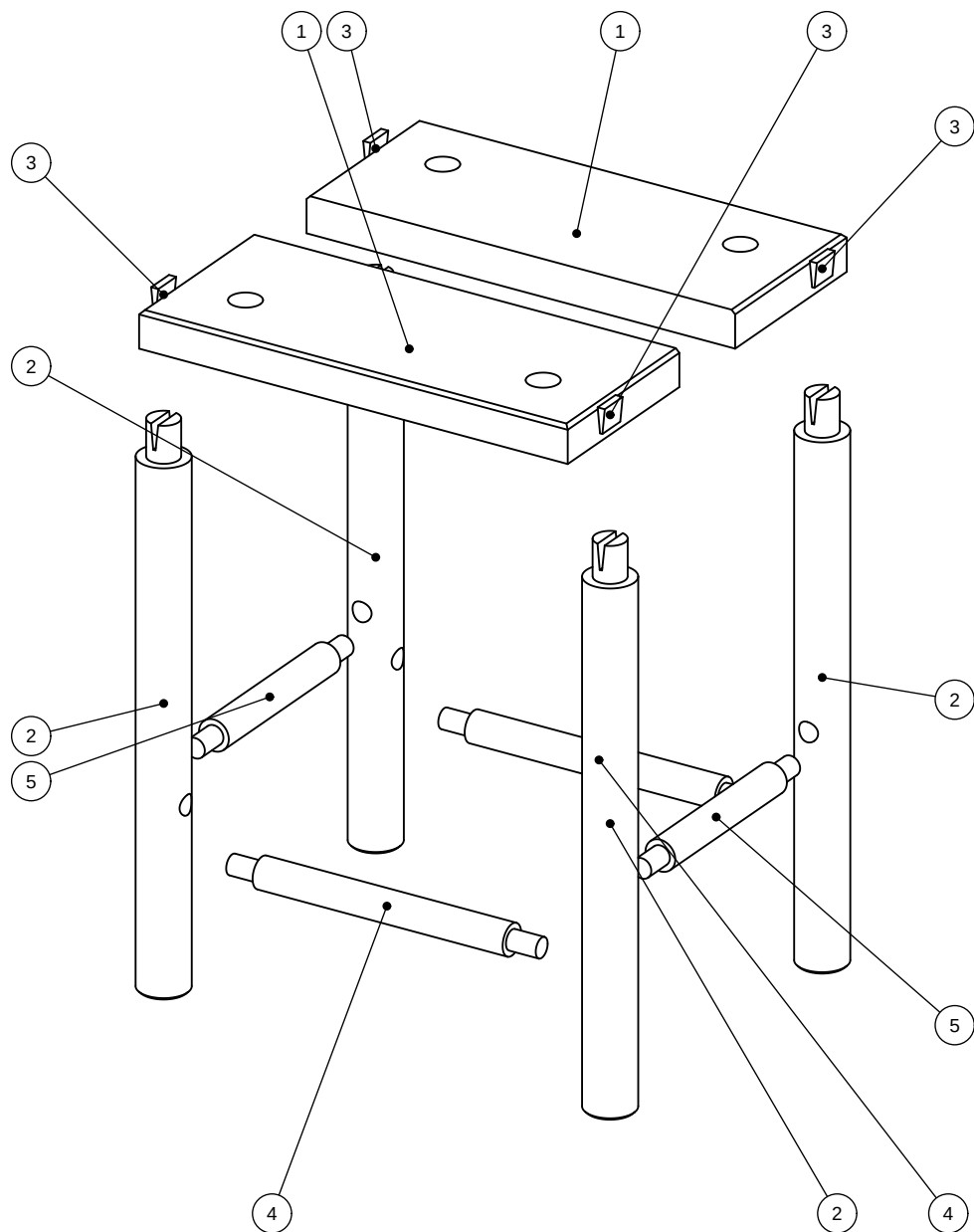


RIGHT SIDE



ISOMETRIC

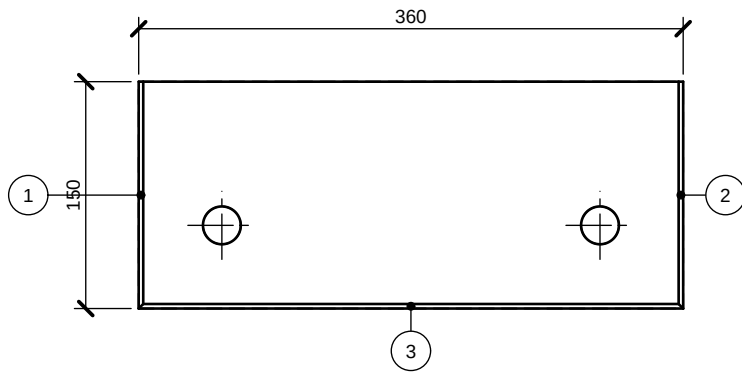
assembly	stool
parts	14 (5 different)
overall	360 x 300 x 450 (W x D x H)
material	oak
scale	1:8, mm



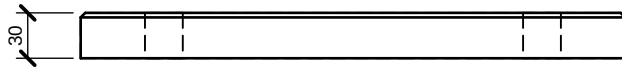
EXPLODED

no.	part	qty	cut size (L x W x T)	material	
1	seat	2	360 x 150 x 30	oak	
2	leg	4	ø40 x 450	oak	2 mirror image
3	wedge	4	20 x 6 x 24	oak	
4	stretcher_front_back	2	ø25 x 260	oak	
5	stretcher_right_left	2	ø25 x 200	oak	

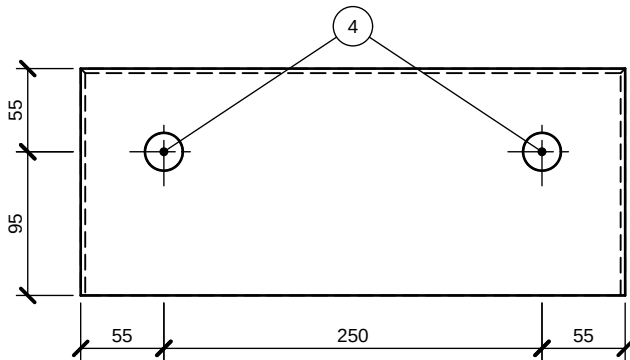
assembly	stool
parts	14 (5 different)
overall	360 x 300 x 450 (W x D x H)
material	oak
scale	not to scale, mm



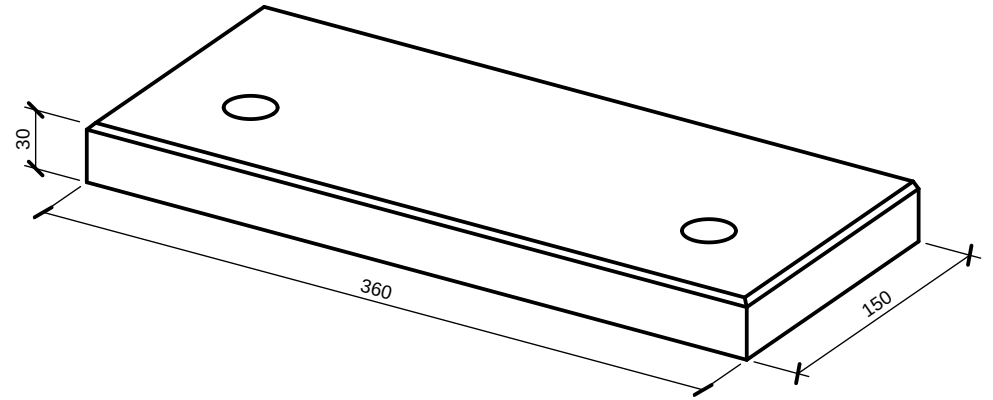
TOP FACE



FRONT EDGE



BOTTOM FACE



ISOMETRIC

2 pieces: seat_1, seat_2

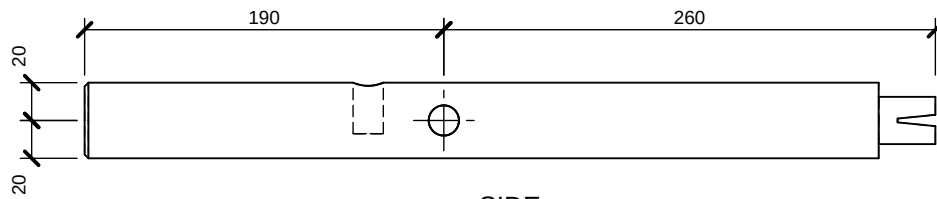
1 chamfer 3 mm on top_face_left_end_arris

2 chamfer 3 mm on top_face_right_end_arris

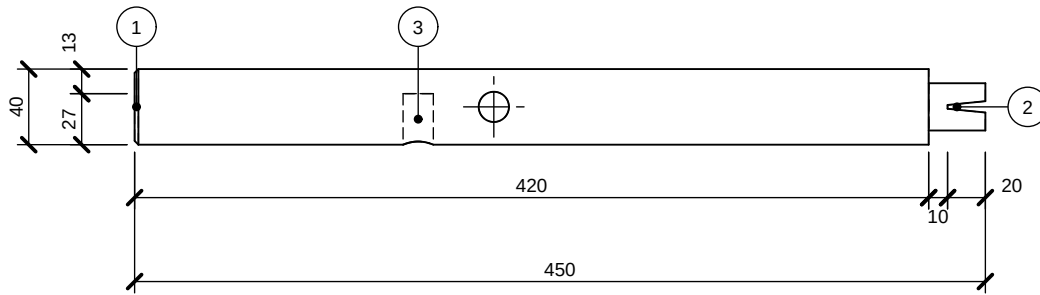
3 chamfer 3 mm on top_face_front_edge_arris

4 2 x through hole $\varnothing 25$, in bottom_face

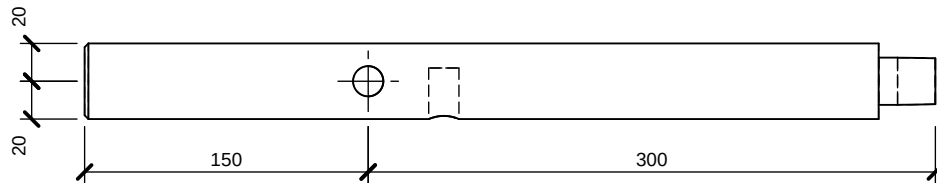
part	seat
of	stool
make	2
cut size	360 x 150 x 30
material	oak
scale	1:5, mm



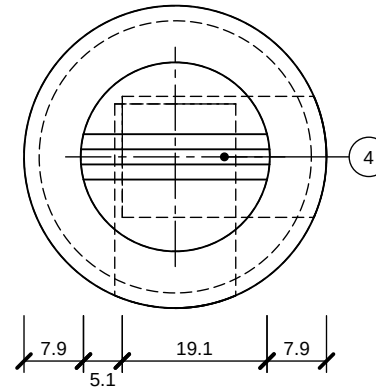
SIDE



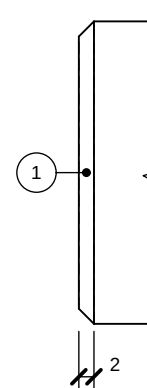
SIDE



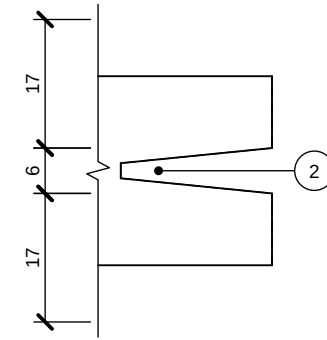
SIDE



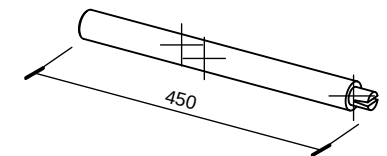
RIGHT END 1:1



SIDE: 1 1:1



SIDE: 2 1:1



ISOMETRIC

4 pieces: leg_front_left, leg_back_right; mirror image: leg_front_right, leg_back_left

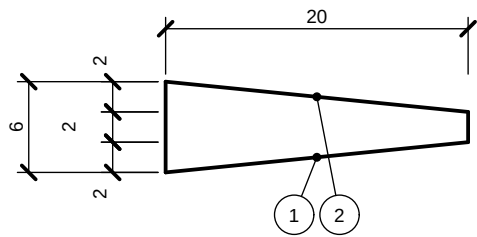
1 chamfer 2 mm around left_end

2 round tenon $\varnothing 25$, 30 long, a saw kerf 2 mm, 20 deep, for a wedge, on right_end

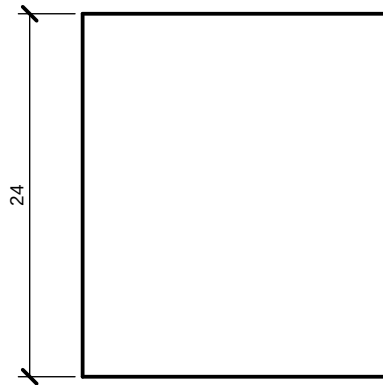
3 hole $\varnothing 16$, 27 deep, in bottom_face

4 hole $\varnothing 16$, 27 deep, in back_edge

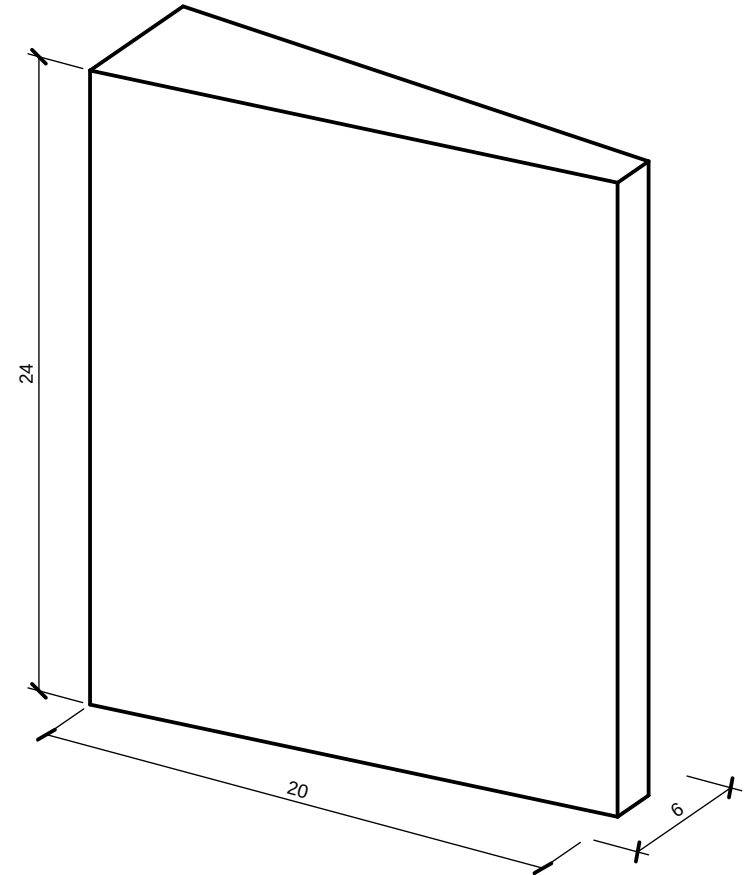
part	leg
of	stool
make	4 (2 mirror image)
cut size	$\varnothing 40 \times 450$
material	oak
scale	1:4, mm



TOP FACE



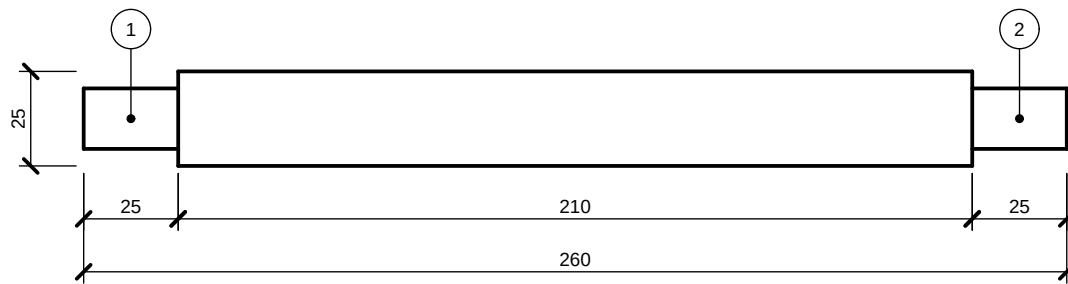
FRONT EDGE



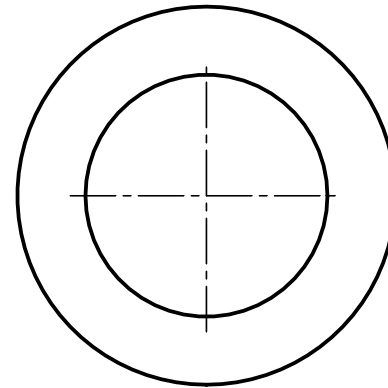
ISOMETRIC

- 4 pieces: wedge_front_left, wedge_front_right, wedge_back_right, wedge_back_left
- 1 taper 2 mm on front_edge towards right_end
- 2 taper 2 mm on back_edge towards right_end

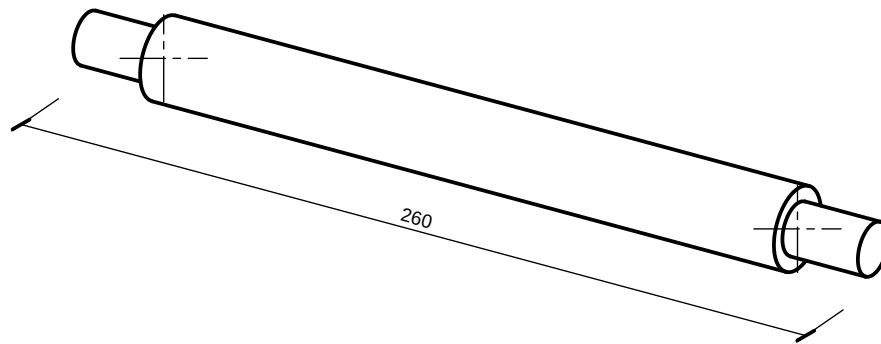
part	wedge
of	stool
make	4
cut size	20 x 6 x 24
material	oak
scale	2:1, mm



SIDE



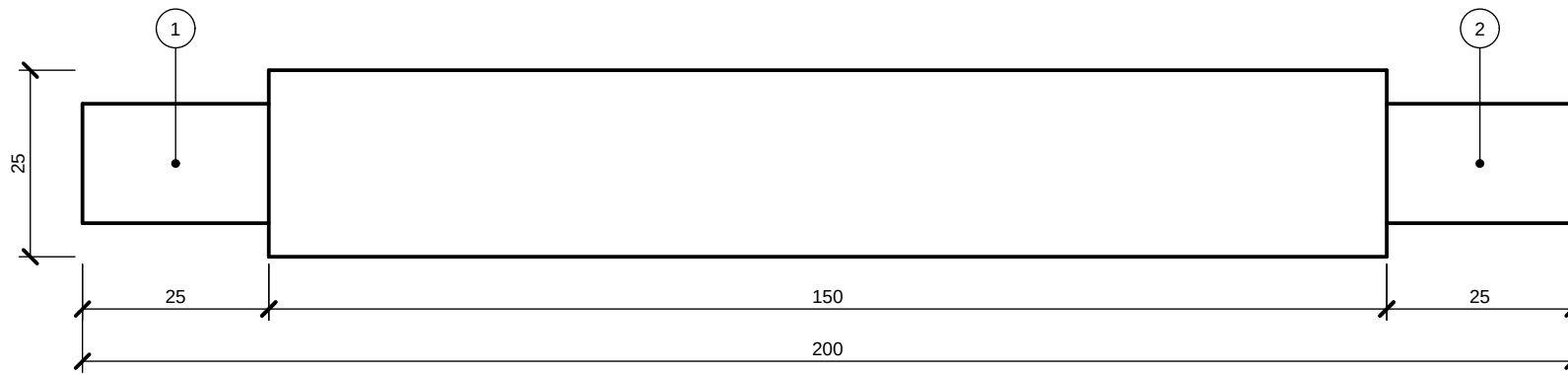
RIGHT END 2:1



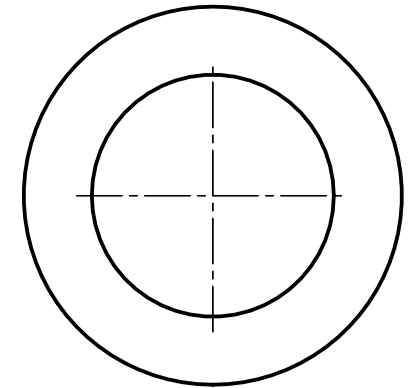
ISOMETRIC

- 2 pieces: stretcher_front, stretcher_back
 1 round tenon $\varnothing 16$, 25 long, on left_end
 2 round tenon $\varnothing 16$, 25 long, on right_end

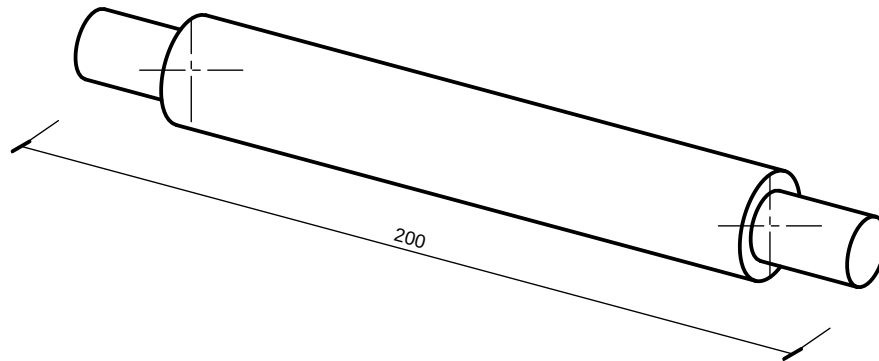
part	stretcher_front_back
of	stool
make	2
cut size	$\varnothing 25 \times 260$
material	oak
scale	1:2, mm



SIDE



RIGHT END 2:1



ISOMETRIC

2 pieces: stretcher_right, stretcher_left
 1 round tenon $\varnothing 16$, 25 long, on left_end
 2 round tenon $\varnothing 16$, 25 long, on right_end

part	stretcher_right_left
of	stool
make	2
cut size	$\varnothing 25 \times 200$
material	oak
scale	1:1, mm

Cut list

seat	360 x 150 x 30 mm oak, 2 pieces: seat_1, seat_2
	- chamfer 3 mm on top_face_left_end_aris
	- chamfer 3 mm on top_face_right_end_aris
	- chamfer 3 mm on top_face_front_edge_aris
	- 2 x through hole ø25, in bottom_face, 55 and 305 from left_end; 55 from front_edge
leg	ø40 x 450 mm oak, 4 pieces: leg_front_left, leg_back_right; mirror image: leg_front_right, leg_back_left
	- chamfer 2 mm around left_end
	- round tenon ø25, 30 long, a saw kerf 2 mm, 20 deep, for a wedge, on right_end
	- hole ø16, 27 deep, in bottom_face, 150 from left_end, centered
	- hole ø16, 27 deep, in back_edge, 190 from left_end, centered
wedge	20 x 6 x 24 mm oak, 4 pieces: wedge_front_left, wedge_front_right, wedge_back_right, wedge_back_left
	- taper 2 mm on front_edge towards right_end
	- taper 2 mm on back_edge towards right_end
stretcher_front_back	ø25 x 260 mm oak, 2 pieces: stretcher_front, stretcher_back
	- round tenon ø16, 25 long, on left_end
	- round tenon ø16, 25 long, on right_end
stretcher_right_left	ø25 x 200 mm oak, 2 pieces: stretcher_right, stretcher_left
	- round tenon ø16, 25 long, on left_end
	- round tenon ø16, 25 long, on right_end

Appendix: source

Made with woodwright 0.9.0, build123d 0.13.0, Python 3.14.4.

To make these plans again:

```
uvx --python 3.14 woodwright==0.9.0 export projects.stool
```

projects.stool, in woodwright/examples/projects.py

```
def stool(
    width: float = 360,
    depth: float = 300,
    height: float = 450,
    seat_boards: int = 2,
    leg_inset: float = 55,
    tenon: float = 25,
    stretcher_heights: tuple[float, float] = (150, 190),
    seat_chamfer: float = 3,
    stock: Stock = THICK_OAK,
) -> Assembly:
    """A stool: four round legs wedged through a solid seat, round stretchers
    between them; straight legs (splayed ones come later).

    The seat, glued up from `seat_boards` boards edge to edge, its grain
    from side to side, is `height` above the floor; its arrises are
    chamfered all round on top. The legs' axes are `leg_inset` in from the
    seat's ends and edges; their round tenons, `tenon` wide, go through the
    seat flush with its top, each wedged in a kerf across the seat's grain,
    so that the wedge spreads the tenon along the grain and doesn't split
    the seat. The stretchers (their axes at `stretcher_heights`, for the
    front and back and for the sides) have round tenons in cross holes in
    the legs, the side ones higher, so that the holes don't meet.
    """
    floor = orient(at=(0, 0, height - stock.thickness), top_face=UP, back_edge=BACK)
    asm = Assembly("stool", root_location=floor)
    seat = [
        asm.add(Board(f"seat_{i + 1}", stock, length=width, width=depth / seat_boards))
        for i in range(seat_boards)
    ]
```

```

for a, b in itertools.pairwise(seat):
    asm.join(Butt(a.back_edge, b.front_edge))
for board in seat:
    sides = [board.left_end, board.right_end]
    sides += [
        edge
        for edge, outer in [(board.front_edge, seat[0]), (board.back_edge, seat[-1])]
        if board is outer
    ]
    for side in sides:
        board.cut(Chamfer(board.arris(board.top_face, side), size=seat_chamfer))
legs = _wedged_legs(
    asm,
    seat,
    height - stock.thickness,
    (leg_inset, leg_inset),
    tenon,
    kerf=2,
    flare=2,
    wedge_length=20,
)
front_back, sides = stretcher_heights
spans = [
    ("stretcher_front", 0, front_back),
    ("stretcher_right", 1, sides),
    ("stretcher_back", 2, front_back),
    ("stretcher_left", 3, sides),
]
between = (width - 2 * leg_inset, depth - 2 * leg_inset)
_rod_stretchers(asm, legs, spans, between, tenon=16)
return asm

```