Barefoot Drawing: Sole, Heel, and Toe Shapes

Original tasks 1, 2, 3 / complete keys

Task 1

A described foot has length 18 units, heel width 4 units, ball width 7 units, and toe widths 2, 2, 1.5, 1, 1. Check the sole outline and toe sum.

Answer: Toe sum = 2 + 2 + 1.5 + 1 + 1 = 7.5 units, close to ball width 7. Heel plus ball = 4 + 7 = 11, less than length 18. The outline is plausible; reduce one toe by 0.5 unit to match ball width exactly.

Reason: Use addition for toe sum and heel-plus-ball, then compare with length and ball width.

Check: Re-add toe widths and confirm the sum is within 1 unit of ball width.

Task 2

In a side view, sole length is 22 units and heel height is 8 units. Is the heel height about one-third of sole length? Show arithmetic.

Answer: One-third of 22 is about 7.33. Heel height 8 is close, so the proportion is plausible. Check: 8 × 3 = 24, which is 2 units more than 22.

Reason: Multiply heel height by 3 and compare with sole length.

Check: Confirm 8 × 3 = 24 and note the 2-unit difference.

Task 3

A top-view sole has heel width 6 units and ball width 10 units. The foot length is 24 units. Draw a described sole outline and state one valid alternative heel shape.

Answer: Heel plus ball = 16, less than 24, so the outline is plausible. A valid alternative heel shape is a slightly flattened curve instead of a round curve, as long as it stays within 6 units width.

Reason: Check heel plus ball against length, then apply the rubric allowance for valid alternatives.

Check: Measure heel width in the drawing and confirm it does not exceed 6 units.

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Original tasks 4 / complete keys

Task 4

Toe widths are 3, 2.5, 2, 1.5, 1 and ball width is 9. Sum the toes and decide whether to adjust.

Answer: Toe sum = 3 + 2.5 + 2 + 1.5 + 1 = 10 units. Ball width is 9, so the toe sum is 1 unit wider. Reduce the big toe to 2 or widen the ball to 10; either is valid if measurements stay consistent.

Reason: Add toe widths and compare with ball width; adjust one value by the difference.

Check: Re-sum after adjustment and confirm the new sum is within 1 unit of ball width.

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Source rubric / reflection

- [ ] Sole outline is closed and narrows at the arch.
- [ ] Heel curve connects smoothly to the sole and stays within measured heel width.
- [ ] Toe shapes are closed and their widths sum close to ball width.
- [ ] Baseline and midline are marked, and x-height is used consistently.
- [ ] Three-angle panel shows top, side, and sole views with consistent proportions.
- [ ] Valid alternatives in toe and heel style are accepted if measurements match.

Reflection: What did you check, what did you change, and what will you try next?