Contour Drawing Keys: Outline-Only Practice

Original task 1 / complete key

Task 1

Draw one key 10 cm long with a bow 2.5 cm wide and a shaft 6 cm long. Include one ring hole and two notches. Use a 1.5 cm margin on 15 cm by 20 cm paper.

Answer: A contour key with a closed bow outline, a closed ring hole inside the bow, two parallel shaft lines 6 cm long, and two open notch contours at the bit. Total length is 2.5 cm bow plus 6 cm shaft plus 1.5 cm bit, equal to 10 cm. The bow-to-shaft ratio is 2.5:6, which simplifies to 5:12.

Reason: The bow-to-shaft ratio is 2.5:6, or 5:12. The bit length is chosen so the total equals 10 cm: 2.5 + 6 + 1.5 = 10. Margins leave 12 cm of usable width (15 minus 1.5 on each side), which fits the 10 cm key with 1 cm spare on each side.

Check: Measure the drawn bow width and shaft length and confirm the 5:12 ratio within 10 percent. Count one closed ring hole and two open notches. Confirm no shading marks.

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Original task 2 / complete key

Task 2

Draw two keys on one sheet, each 8 cm long, with 1 cm between them and 1 cm margins. Key A has a bow 2 cm wide, a bit 1 cm long, and one notch. Key B has a bow 2.5 cm wide, a bit 1 cm long, and three notches. Use 20 cm by 15 cm paper, placing the keys along the 20 cm side.

Answer: Two separate contour keys placed side by side along the 20 cm side with 1 cm spacing and 1 cm margins. Key A shows a closed bow, closed ring hole, shaft, and one open notch. Key B shows a closed bow, closed ring hole, shaft, and three open notches. Total width used is 1 cm margin plus 8 cm plus 1 cm gap plus 8 cm plus 1 cm margin, equal to 19 cm, which fits within the 20 cm paper width. Key A has a 2 cm bow and a 5 cm shaft (2:5); Key B has a 2.5 cm bow and a 4.5 cm shaft (5:9).

Reason: The layout must fit the paper width. Along the 20 cm side, with 1 cm margins and a 1 cm gap, the total is $1 + 8 + 1 + 8 + 1 = 19$ cm, which fits within the 20 cm paper width. Each key's shaft length follows from the stated bit length: Key A is $8 - 2 - 1 = 5$ cm shaft, and Key B is $8 - 2.5 - 1 = 4.5$ cm shaft. The bow-to-shaft comparison for each key can be checked separately: Key A is 2 cm bow to 5 cm shaft (2:5), and Key B is 2.5 cm bow to 4.5 cm shaft (5:9).

Check: Add margin, key lengths, and gap and compare to paper width. Confirm each key has one closed ring hole and the correct notch count. Check that contours do not touch.

Contour Drawing Keys: Outline-Only Practice

Original task 3 / complete key

Task 3

Draw a hand holding a ring with two keys. One key points left and one points right. The ring is drawn as an ellipse outline 2 cm wide and 1 cm tall. Show only visible contours and stop lines at finger overlaps.

Answer: A contour hand shape with wrist edge, thumb, and visible fingers. The ring appears as a closed ellipse where visible. The left-pointing key contour stops where a finger covers it and restarts on the visible side. The right-pointing key is drawn similarly. No hidden edges are drawn through fingers.

Reason: The ellipse dimensions are hypothetical examples for easy checking. Overlap handling is the key skill: each contour either closes or stops at a covering finger. The two keys are placed on opposite sides to test direction and spacing.

Check: Trace each contour and confirm it stops at an overlap rather than crossing a finger. Measure the ring ellipse and confirm 2 cm by 1 cm within 0.5 cm. Count two key contours and confirm no shading.

Contour Drawing Keys: Outline-Only Practice

Original task 4 / complete key

Task 4

Draw a key ring with three keys arranged in a fan. Each key is 6 cm long with a bow 1.5 cm wide and a bit 1 cm long. The ring is a closed contour 3 cm across. Use 18 cm by 18 cm paper with 2 cm margins.

Answer: A closed ring contour 3 cm across (diameter 3 cm, radius 1.5 cm) with three key contours radiating outward in a fan. Each key shows a closed bow, closed ring hole, shaft, and at least one notch. Each key has a 1.5 cm bow, a 3.5 cm shaft, and a 1 cm bit: 1.5 + 3.5 + 1 = 6 cm total, and the bow-to-shaft ratio is 1.5:3.5, which simplifies to 3:7. Angle the outer keys inward so the fan fits the 14 cm usable width and height (18 − 2 − 2 = 14 cm). With the middle key pointing straight up and the outer keys angled about 30 degrees from vertical, a useful conservative centre-to-tip bound is ring radius plus key length times sin30°: 1.5 + 6 × 0.5 = 4.5 cm each side, or a 9 cm bound. Actual offsets depend on the attachment point and bow/bit width, so verify the complete contour envelope rather than claiming this bound is every exact tip coordinate. The upper reach above the ring centre is bounded by 1.5 + 6 = 7.5 cm; including the ring's 1.5 cm lower radius gives a total vertical bound of 9 cm, still under 14 cm. Stop hidden contours at actual overlaps and add no shading.

Reason: The ring is 3 cm in diameter (radius 1.5 cm), and each key is 6 cm long. Measure tip offsets from the ring centre: a key pointing straight sideways would put its tip 1.5 + 6 = 7.5 cm from the centre, so two opposite sideways keys would span 7.5 + 7.5 = 15 cm, exceeding the 14 cm usable width. Angling the outer keys inward reduces the horizontal span: at 30 degrees from vertical, each outer key's tip is offset from the ring centre by the ring radius plus the sideways projection, 1.5 + 6 × sin 30° = 1.5 + 3 = 4.5 cm, giving a total horizontal span of 4.5 + 4.5 = 9 cm, under 14 cm. The vertical extent is radius 1.5 + middle key 6 = 7.5 cm, also under 14 cm. The bow-to-shaft ratio for each key is 1.5:3.5, or 3:7, which is easy to check.

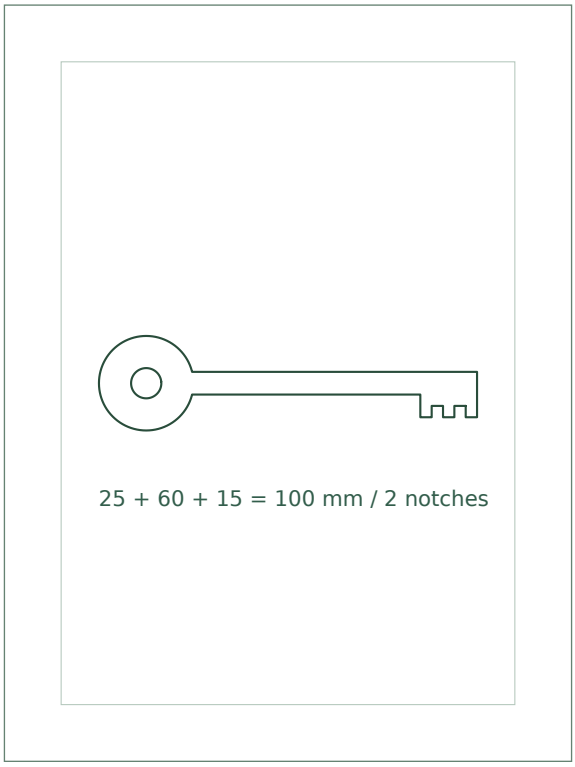
Check: Measure each key bow and shaft and confirm the 3:7 ratio within 10 percent. Confirm each key's bow, shaft, and bit add to 6 cm. Confirm the ring is a closed contour and each key has a closed ring hole. Check that no contours merge and no shading is present.

Contour Drawing Keys: Outline-Only Practice

Task 1 / answers

Outline-only keys / actual negative cutouts and occlusion stops / no hatching

Hypothetical paper 150 x 200 mm / margins 15 mm / frame PRINT1:2



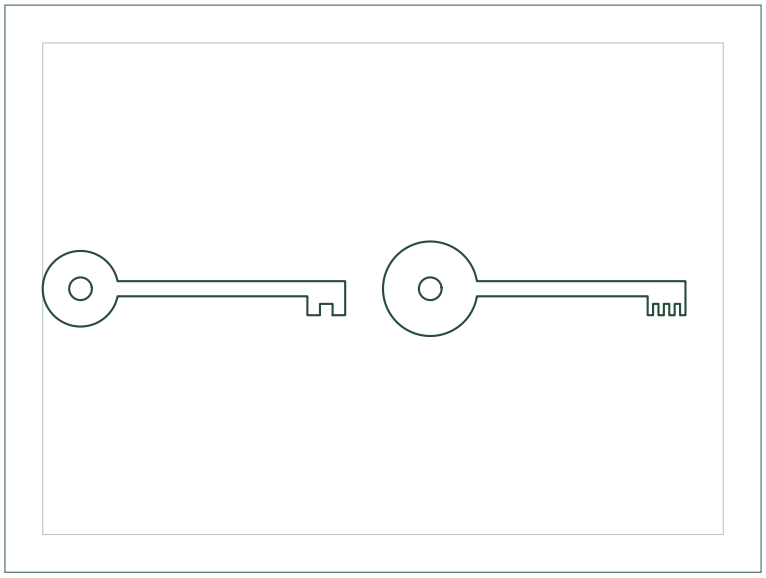
Task1: 25 +60 +15 =100 mm. Bow-to-shaft25:60 reduces to5:12. Paper150 -2x15 =120 mm usable width, leaving10 mm spare each side of this100 mm key. One closed ring hole and exactly two actual edge notches; no shading or decorative mechanism detail.

Contour Drawing Keys: Outline-Only Practice

Task 2 / answers

Outline-only keys / actual negative cutouts and occlusion stops / no hatching

Hypothetical paper 200 x 150 mm / margins 10 mm / frame PRINT1:2



20 + 50 + 10 = 80 mm / 1 notches

25 + 45 + 10 = 80 mm / 3 notches

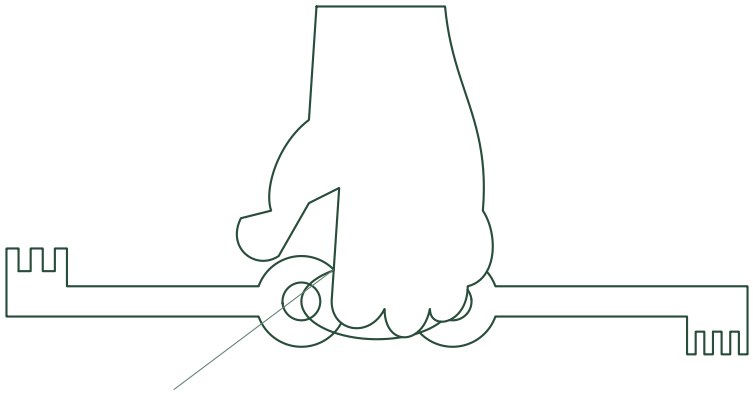
Task2: A20+50+10=80 mm with one notch; B25+45+10=80 mm with three. The two keys have10 mm visible end-to-end gap. 10+80+10+80+10=190 mm fits the200 mm paper; the extra10 mm is unused. Ratios A2:5 and B5:9, each checked separately.

Contour Drawing Keys: Outline-Only Practice

Task 3 / answers

Outline-only keys / actual negative cutouts and occlusion stops / no hatching

Underlying ring20 x10 mm / two keys point LEFT and RIGHT / PRINT1:1



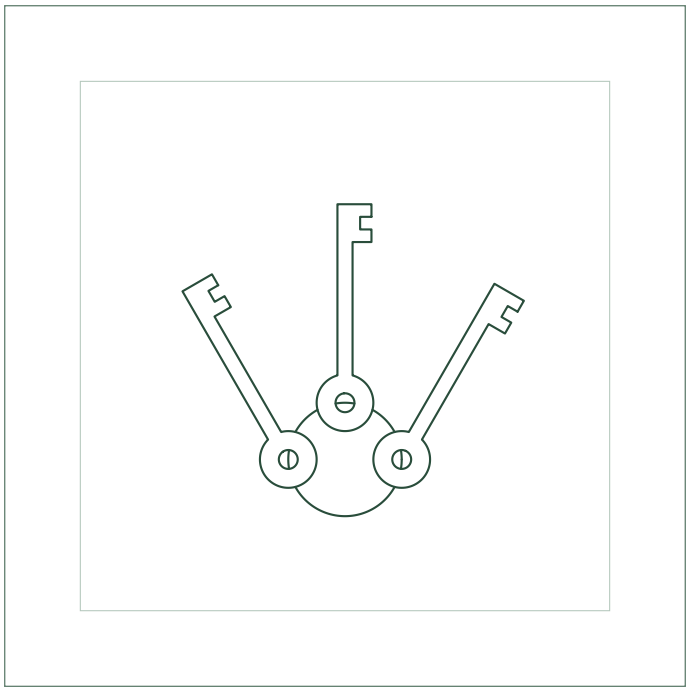
Task3: the complete wrist, palm, opposing thumb and four curled finger lobes form the front occluder. The original ring ellipse is20 x10 mm. Exactly two keys project in opposite directions. Hidden key/ring segments are geometrically removed inside the actual hand; visible fragments restart on its contour, never continue through a covering finger. All art lines have the same weight; pale leader is explanatory only.

Contour Drawing Keys: Outline-Only Practice

Task 4 / answers

Outline-only keys / actual negative cutouts and occlusion stops / no hatching

Hypothetical paper 180 x 180 mm / margins 20 mm / frame PRINT1:2



Task4: three60 mm keys, each15+35+10 mm, ratio3:7, one notch and one closed ring hole per key. The underlying ring is a closed30 mm circle; only the arcs actually behind solid key bows are omitted, as contour occlusion requires. Exact full contour bounds are checked inside the140 mm usable square. A90 mm horizontal/vertical conservative bound is not an assertion that every actual tip is at that bound.

Contour Drawing Keys: Outline-Only Practice

Source rubric / reflection

- [ ] Contour convention: all edges are outline-only; no shading, hatching, or texture.
- [ ] Proportion: bow width to shaft length ratio is within 10 percent of the reference ratio.
- [ ] Continuity: every contour is continuous or stops cleanly at an overlap.
- [ ] Internal contours: ring hole and notches are drawn as separate closed or open contours.
- [ ] Overlap handling in hand pose: hidden edges are not drawn through covering fingers.
- [ ] Line weight: consistent throughout the drawing.
- [ ] Valid alternatives: decorative bow shapes and different key counts are accepted if the convention and proportion checks pass.

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