Contour Drawing of Weighing Scales: A Line-Only Study

BLIND / SLOW CONTOUR AND MEASUREMENTS

Keep your actual scale or the supplied reference beside this worksheet. First draw for thirty seconds in the blind-contour box without watching your paper. After the timer ends, inspect that result. Draw again in the slow-contour box, checking the paper every three to five seconds.

BLIND CONTOUR / 30 seconds

SLOW CONTOUR / look occasionally

Keep eyes on the separate reference

Trace dial rim and platform edge

After drawing, label the dial rim and platform edge on the slow contour. Measure both completed drawings and record the paper values below. Leave the table empty until you measure.

Method	Drawn dial diameter (cm)	Drawn platform edge (cm)
Blind contour		
Slow contour		

Chosen object-to-paper factor: _____. Reference/object used: _____

- ☐ Closed rim, visible edges only; no shading, ticks or internal mechanics.
- ☐ Continuous contour segments; minimal lifts only between separate contours.
- ☐ Pointer added last and stops at rim; measured paper values recorded.

These boxes do not prescribe the answer dimensions for exercise 1. The timed drawings are observation practice. Distortion in the blind contour is expected; compare it with the slow contour rather than tracing a prefilled solution.

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FOUR EXERCISES / EMPTY RESPONSE AREAS

1. A scale has a dial rim diameter of 6 cm and a platform front edge of 18 cm. Using a scale of 1 cm to 0.5 cm, calculate the drawn dial diameter and platform edge length. Describe the contour line you would draw.

2. In a blind-contour drawing of a scale, you draw the dial rim as an oval that does not close. State one likely cause and one correction.

3. A scale platform is 25 cm wide and 12 cm deep. You draw the front edge as 12.5 cm and the side edge as 6 cm. What scale did you use? Show your arithmetic.

4. You are drawing a scale with a dial rim and a platform. List the order of contour lines you would draw to keep the line continuous, and explain why the needle axis is drawn last.

1	2	3	4	5

Optional route notes: use as many boxes as your valid contour sequence needs.

- [ ] Closed rim, visible edges only; no shading, ticks or internal mechanics.
- [ ] Continuous contour segments; minimal lifts only between separate contours.
- [ ] Pointer added last and stops at rim; measured paper values recorded.

Show the calculations for questions 1 and 3. For question 2 describe the likely cause and repair. For question 4 describe or sketch a valid route; the boxes intentionally contain no completed scale.