Potato Contour Drawing: Blind and Modified Edge Studies

Original tasks 1, 2, 3 / complete keys

Task 1

A potato outline has 8 edge events. A blind contour drawing records 5. The student's x-height is 6 mm. State whether the difference exceeds two events and what the student should do next.

Answer: The difference is 3 events, which exceeds two. The student should repeat the blind study at a slower pace and recount edge events on both the potato and the new drawing.

Reason: Subtract 5 from 8 to get 3. Compare 3 with the threshold of two. Since 3 is greater, repeat the study. The x-height of 6 mm is recorded but not needed for this count check.

Check: Recount edge events on the potato and the drawing independently, then subtract the smaller count from the larger.

Task 2

A modified contour study uses segments of about two x-heights. If the x-height is 4 mm, what is the approximate segment length in millimetres? Show the arithmetic.

Answer: The approximate segment length is 8 mm, because 2 multiplied by 4 mm equals 8 mm.

Reason: The rule states two to three x-heights per glance. Using two x-heights and a measured x-height of 4 mm gives 2 times 4 equals 8 mm. This is a hypothetical example value.

Check: Measure one drawn segment with a ruler and compare it with 8 mm; repeat for three segments and note any variation.

Task 3

A student draws a blind contour but looks at the paper twice. They count 9 edge events on the potato and 9 on the drawing. Is the study valid as a blind contour? Explain.

Answer: No. A blind contour requires no looking at the paper during the circuit. The matching count does not make it valid; the student should repeat without looking and recount.

Reason: The defining rule is eyes on the potato for the full circuit. Looking twice breaks that rule regardless of the count. The count check is separate from the blind rule.

Check: Ask the student to describe their eye movements during the circuit and confirm no paper glances occurred.

Potato Contour Drawing: Blind and Modified Edge Studies

Original tasks 4 / complete keys

Task 4

An observation redraw shows a bump one x-height above the baseline. The potato's same bump is about one and a half x-heights above the baseline. The x-height is 5 mm. Describe the discrepancy in millimetres and one correction step.

Answer: The drawn bump is 5 mm above the baseline, while the potato bump is about 7.5 mm above it, a discrepancy of about 2.5 mm. One correction step is to re-measure the bump height on the potato and adjust the redraw using the baseline and midline.

Reason: One x-height is 5 mm and one and a half x-heights is 7.5 mm. Subtract 5 from 7.5 to get 2.5 mm. The correction uses the same baseline and midline reference.

Check: Measure both heights with a ruler in millimetres and subtract the smaller from the larger.

Potato Contour Drawing: Blind and Modified Edge Studies

Source rubric / reflection

- [ ] Blind contour keeps eyes on the potato for one complete circuit without looking at the paper.
- [ ] Modified contour uses brief glances only to place the pen, with most time spent observing the potato.
- [ ] At least three edge events from the potato appear in the observation redraw.
- [ ] X-height is measured and recorded in millimetres, and units stay consistent.
- [ ] Comparison notes identify one captured and one missed edge event across studies.
- [ ] Valid alternative styles are accepted if edge events and scale checks are documented.

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