Knob-Line Technique for Etch A Sketch Drawing

Original tasks 1, 2, 3 / complete keys

Task 1

Draw a rectangle 12 short horizontal turns wide and 6 short vertical turns tall. Describe the sequence and how you would check it.

Answer: Start at a corner. Turn horizontal 12 counts, vertical 6 counts, horizontal 12 counts back, vertical 6 counts up to start. Check by counting each side and confirming opposite sides use equal counts.

Reason: A rectangle needs two equal horizontal runs and two equal vertical runs. Counting keeps the sides even.

Check: Count the turns on each side; opposite sides should match. Confirm the path returns to the start.

Task 2

Draw a stair-step curve that rises 4 vertical turns while moving 8 horizontal turns. Describe the alternation and a check.

Answer: Alternate one horizontal count and one vertical count, but use two horizontal counts for every one vertical count, repeated four times. Check that the total horizontal is eight and vertical is four.

Reason: A curve is a stair-step. Matching the ratio of horizontal to vertical counts controls the slope.

Check: Add the horizontal counts and vertical counts separately; they should equal 8 and 4.

Task 3

You have drawn a house outline and a door, but the door is too far left. Describe a correction that does not retrace lines.

Answer: Erase the whole screen in bands, then redraw the house with the door shifted right by planning the door position on the paper grid first.

Reason: Retracing doubles lines and looks messy. Erasing and redrawing keeps the screen clean and the proportion correct.

Check: After erasing, confirm the screen is even. After redrawing, compare the door position to the paper plan.

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Original tasks 4 / complete keys

Task 4

Describe an erase sequence for a screen with a dark patch in the lower-right area. Include at least three steps and a check.

Answer: Lay the toy flat. Shake gently left to right across the whole screen. Rotate ninety degrees and shake again. Repeat until the dark patch is gone. Check by holding the screen level and looking for uneven powder.

Reason: Banded shaking redistributes powder evenly. Rotating covers both axes. Repeating removes persistent patches.

Check: Look for dark patches or streaks under even light; the powder layer should look uniform.

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Source rubric / reflection

- [ ] The path is planned on paper before drawing.
- [ ] Straight segments use counted, even knob-lines.
- [ ] Curves use alternating short horizontal and vertical moves.
- [ ] The drawing proceeds from large shapes to small details.
- [ ] Erasing uses slow bands with a ninety-degree rotation.
- [ ] The final screen is free of dark patches after erasing.
- [ ] Valid alternatives: different turn counts, different start points, and different subject styles are acceptable if the path is intentional and checkable.

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