Kindle E-Reader Drawing: Screen, Bezel, and Button Detail

Original tasks 1, 2 / complete keys

Task 1

Draw an e-reader body 12 cm wide and 16 cm tall. Use 1.5 cm side bezels, a 2 cm top bezel, and a 3 cm bottom bezel. Leave a 0.5 cm margin inside the bezel opening for the screen. What are the screen width and height?

Answer: Screen width is 8 cm; screen height is 10 cm.

Reason: Bezel opening width: 12 minus 1.5 minus 1.5 equals 9 cm. Screen width: 9 minus 0.5 minus 0.5 equals 8 cm. Bezel opening height: 16 minus 2 minus 3 equals 11 cm. Screen height: 11 minus 0.5 minus 0.5 equals 10 cm.

Check: Add the margins back: 8 plus 0.5 plus 0.5 equals 9 cm opening width; 10 plus 0.5 plus 0.5 equals 11 cm opening height. Then add bezels: 9 plus 1.5 plus 1.5 equals 12 cm; 11 plus 2 plus 3 equals 16 cm.

Task 2

Using the same 12 cm by 16 cm body and bezels from the previous exercise, place three buttons in the bottom bezel. Each button is 0.8 cm wide and 0.4 cm tall, with 0.6 cm gaps. The buttons start 1 cm below the screen. How far is the button group from the left edge of the screen, and how much space remains below the buttons?

Answer: The group starts 2.2 cm from the screen's left edge; 1.6 cm remains below the buttons.

Reason: Button group width: 0.8 plus 0.6 plus 0.8 plus 0.6 plus 0.8 equals 3.6 cm. Screen width is 8 cm, so centering gives (8 minus 3.6) divided by 2 equals 2.2 cm from the screen's left edge. Bottom bezel is 3 cm; subtract 1 cm gap and 0.4 cm button height to get 1.6 cm remaining.

Check: Verify total width: 2.2 plus 3.6 plus 2.2 equals 8 cm. Verify vertical space: 1 plus 0.4 plus 1.6 equals 3 cm.

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Original tasks 3, 4 / complete keys

Task 3

Draw a device 9 cm wide and 13 cm tall with equal side bezels of 1 cm, a top bezel of 1.5 cm, and a bottom bezel of 2.5 cm. The screen margin inside the opening is 0.5 cm. Place one centered button 1 cm wide and 0.5 cm tall, starting 0.8 cm below the screen. What is the button's distance from the left edge of the screen, and how much space is below the button?

Answer: The button starts 2.5 cm from the screen's left edge; 1.2 cm remains below the button.

Reason: Bezel opening width: 9 minus 1 minus 1 equals 7 cm. Screen width: 7 minus 0.5 minus 0.5 equals 6 cm. Centering a 1 cm button gives (6 minus 1) divided by 2 equals 2.5 cm from the screen's left edge. Bottom bezel is 2.5 cm; subtract 0.8 cm gap and 0.5 cm button height to get 1.2 cm remaining.

Check: Check horizontal: 2.5 plus 1 plus 2.5 equals 6 cm. Check vertical: 0.8 plus 0.5 plus 1.2 equals 2.5 cm.

Task 4

A drawing plan uses a 14 cm by 20 cm body with side bezels of 2 cm, a top bezel of 2.5 cm, and a bottom bezel of 3.5 cm. The screen margin is 0.5 cm. Two buttons, each 1.2 cm wide and 0.6 cm tall, are centered with a 0.8 cm gap and start 1 cm below the screen. Find the screen size, the button group's left offset from the screen, and the space below the buttons.

Answer: Screen is 9 cm by 13 cm; the button group starts 2.9 cm from the screen's left edge; 1.9 cm remains below the buttons.

Reason: Opening width: 14 minus 2 minus 2 equals 10 cm; screen width: 10 minus 0.5 minus 0.5 equals 9 cm. Opening height: 20 minus 2.5 minus 3.5 equals 14 cm; screen height: 14 minus 0.5 minus 0.5 equals 13 cm. Button group width: 1.2 plus 0.8 plus 1.2 equals 3.2 cm. Centering under 9 cm gives (9 minus 3.2) divided by 2 equals 2.9 cm. Bottom bezel 3.5 cm minus 1 cm gap minus 0.6 cm button height equals 1.9 cm remaining.

Check: Horizontal: 2.9 plus 3.2 plus 2.9 equals 9 cm. Vertical: 1 plus 0.6 plus 1.9 equals 3.5 cm. Screen: 9 plus 0.5 plus 0.5 equals 10 cm opening; 13 plus 0.5 plus 0.5 equals 14 cm opening.

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Source rubric / reflection

- [ ] Outer rectangle is drawn with straight, parallel edges and the planned width and height.
- [ ] Bezel widths match the plan on left, right, top, and bottom, with the bottom wider for buttons.
- [ ] Screen rectangle is centered inside the bezel opening with equal margins on all sides.
- [ ] Button group is centered under the screen with equal gaps and consistent button size.
- [ ] No logos, hands, or other devices are included.
- [ ] Labels, if used, are legible and follow the baseline-to-midline x-height convention; letter style may vary.
- [ ] Valid alternatives are accepted if proportions, alignment, and spacing remain consistent with the stated rules.

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