Draw Diverse People: Varied Builds and Facial Features

Original tasks 1, 2, 3 / complete keys

Task 1

Figure A is 7 head units tall with shoulders 2 head units wide. Figure B is 6 head units tall with shoulders 1.5 head units wide. One head unit is 4 cm. Find both heights and shoulder widths in centimeters, then state two proportion differences.

Answer: A: height 28 cm, shoulder width 8 cm. B: height 24 cm, shoulder width 6 cm. Differences: height differs by 4 cm; shoulder width differs by 2 cm.

Reason: Multiply head-unit count by 4 cm for height; multiply shoulder width in head units by 4 cm for shoulder width. Subtract corresponding values.

Check: Recompute 7 times 4, 2 times 4, 6 times 4, and 1.5 times 4; confirm subtractions 28 minus 24 equals 4 and 8 minus 6 equals 2.

Task 2

A head guide has head width 6 cm. Draw feature choices: eye spacing one-third of head width, nose length one-quarter of head height (head height 8 cm), mouth width one-half of head width. Compute each measure in centimeters.

Answer: Eye spacing 2 cm; nose length 2 cm; mouth width 3 cm.

Reason: One-third of 6 is 2; one-quarter of 8 is 2; one-half of 6 is 3.

Check: Multiply each fraction by its base: 6 times 1/3, 8 times 1/4, 6 times 1/2; confirm results.

Task 3

Figure C is 8 head units tall with shoulders 2.5 head units wide. Figure D is 6 head units tall with shoulders 1.5 head units wide. One head unit is 2.5 cm. Find heights and shoulder widths, then state whether the variety rule is met for proportion (at least two differences).

Answer: C: height 20 cm, shoulder width 6.25 cm. D: height 15 cm, shoulder width 3.75 cm. Differences: height 5 cm; shoulder width 2.5 cm. The rule is met.

Reason: Multiply by 2.5 cm; subtract. Two proportion differences exist.

Check: Recompute 8 times 2.5, 2.5 times 2.5, 6 times 2.5, 1.5 times 2.5; confirm differences 5 and 2.5.

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Original tasks 4 / complete keys

Task 4

Design a new figure that differs from Figure A (7 head units tall, shoulders 2 head units wide, rounded jaw, medium eye spacing, short nose) in at least two proportion measures and at least three feature measures. State your chosen values and the differences.

Answer: Example: 6 head units tall, shoulders 1.5 head units wide, angular jaw, wide eye spacing, long nose, narrow mouth. Differences: height 1 head unit; shoulder width 0.5 head unit; jaw, eye spacing, nose length, and mouth width differ (four feature differences).

Reason: Choose values that satisfy the variety rule; compare each measure to Figure A.

Check: List Figure A values and new values side by side; count proportion differences (at least two) and feature differences (at least three).

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Source rubric / reflection

- [ ] Uses baseline-to-midline head-guide height convention and notes that letter styles vary.
- [ ] Labels height and shoulder width in head units for each figure.
- [ ] Shows at least two proportion differences per pair of figures.
- [ ] Shows at least three feature differences per pair: eye spacing, nose length, mouth width, jaw shape.
- [ ] Uses consistent units and checkable arithmetic.
- [ ] Avoids portrait likeness, specific ethnic labels, and clothing detail.
- [ ] Allows valid alternatives in feature shapes and spacing.

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