Draw a Cartoon Character from Simple Shapes

Original tasks 1, 2, 3 / complete keys

Task 1

A character has a head 5 cm tall and a total height of 15 cm. State the head-to-body ratio as a fraction and explain whether it matches a one-third convention.

Answer: The ratio is 5 divided by 15, which equals one-third. It matches the one-third convention.

Reason: Divide head height by total height to get the ratio, then compare to the stated convention.

Check: Recompute 5 divided by 15 and confirm it simplifies to one-third.

Task 2

A student draws a neutral face, then a surprised face by raising both eyebrows and opening the mouth. The head outline is identical in both drawings. Explain why this is a valid expression variation.

Answer: It is valid because only the eyebrows and mouth changed while the head shape stayed consistent, making the expression difference readable and controlled.

Reason: Expression variation should change movable features, not the underlying head shape, so the comparison is fair.

Check: Compare the two drawings and confirm the head outline matches while at least one feature differs.

Task 3

A cartoon arm is drawn as two tapered rectangles joined at a 90-degree elbow. The upper segment is 3 cm and the lower segment is 3 cm. The hand is meant to reach a point 5 cm from the shoulder. Does the arm reach? Use a simple straight-line estimate.

Answer: No. A 90-degree bend means the straight-line distance from shoulder to hand is about 3 times the square root of 2, roughly 4.2 cm, which is less than 5 cm.

Reason: For a right-angle bend with equal segments, the straight-line distance is the hypotenuse of a 3 cm by 3 cm right triangle.

Check: Calculate 3 squared plus 3 squared equals 18, and the square root of 18 is about 4.2 cm, which is below 5 cm.

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Original tasks 4 / complete keys

Task 4

A character is drawn with a head diameter of 6 cm and a total height of 18 cm. The student says the head is one-quarter of total height. Identify the error and give the correct fraction.

Answer: The error is that 6 divided by 18 equals one-third, not one-quarter. The correct fraction is one-third.

Reason: Divide head diameter by total height and simplify the fraction.

Check: Confirm that 6 times 3 equals 18, so the ratio is one-third.

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Source rubric / reflection

- [ ] Shape skeleton is visible and balanced before detail is added.
- [ ] Head-to-body ratio is stated and applied consistently.
- [ ] Limbs connect to the torso and taper clearly.
- [ ] Expression is readable from arm's length and varies by controlled feature changes.
- [ ] Line weight follows a stated convention throughout.
- [ ] Valid stylistic alternatives are accepted if the convention is consistent.

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