Realistic Jellyfish Drawing: Bell Dome, Oral Arms, and Tentacles

Original tasks 1, 2, 3 / complete keys

Task 1

A bell height is 8 units and the longest tentacle is 12 units. Calculate the tentacle-to-bell ratio and state whether it meets the rule that tentacles are longer than oral arms if oral arms are 4 units.

Answer: The tentacle-to-bell ratio is 12 divided by 8, or 1.5. Oral arms are 4 units, which is shorter than the 12-unit tentacle, so the rule is met.

Reason: Divide tentacle length by bell height; compare oral arm length to tentacle length.

Check: Recompute 12 divided by 8 and confirm 4 is less than 12.

Task 2

An oral arm is 5 units and the bell height is 10 units. Is the oral arm shorter than the bell height? Give the ratio.

Answer: Yes, 5 is less than 10. The oral-arm-to-bell ratio is 5 divided by 10, or 0.5.

Reason: Compare the two lengths directly and divide oral arm length by bell height.

Check: Confirm 5 is less than 10 and that 5 divided by 10 equals 0.5.

Task 3

A drawing plan uses a bell height of 7 units, oral arms of 3 units, and tentacles of 10 units. Check both rules: oral arms shorter than bell, and tentacles longer than oral arms.

Answer: Oral arms are 3 units, shorter than the 7-unit bell. Tentacles are 10 units, longer than the 3-unit oral arms. Both rules are met.

Reason: Compare oral arm length to bell height, then tentacle length to oral arm length.

Check: Verify 3 is less than 7 and 10 is greater than 3.

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Original tasks 4 / complete keys

Task 4

A bell height is 9 units and the longest tentacle is 13.5 units. Calculate the tentacle-to-bell ratio and explain whether a 4-unit oral arm is acceptable.

Answer: The ratio is 13.5 divided by 9, or 1.5. A 4-unit oral arm is shorter than the 9-unit bell and shorter than the 13.5-unit tentacle, so it is acceptable.

Reason: Divide tentacle length by bell height; check oral arm against both bell and tentacle.

Check: Recompute 13.5 divided by 9 and confirm 4 is less than 9 and less than 13.5.

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Source rubric / reflection

- [ ] Bell dome is a soft cap with a slightly flattened rim and clear symmetry check.
- [ ] Oral arms are shorter than the bell height and visibly ruffled.
- [ ] Trailing tentacles are longer than oral arms, thinner, and varied in curvature.
- [ ] Shading uses light hatching with gaps so translucency reads.
- [ ] Proportion ratios are recorded and checked in consistent units.
- [ ] Labels and convention are consistent; valid alternative styles are accepted when relationships hold.

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