Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Original task 1 / independent drawing and calculation

Task 1

In a cutaway side view, draw a hull 16 cm long and 5 cm deep. Place the deepest point on the vertical midline. Check the hull curve’s horizontal position at three stations (bow quarter, midship, stern quarter) relative to the midline and state your measured deviations.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Original task 2 / independent drawing and calculation

Task 2

In a labeled cutaway side view, place an upper interior deck line 2 cm below baseline at the stern and 2.5 cm below at the bow inside a hull of depth 5 cm. Add a second deck line 1 cm below and connect with short verticals. Measure spacing at three points.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Original task 3 / independent drawing and calculation

Task 3

In the same cutaway convention, draw a mast on the midline from the upper interior deck to 10 cm above it as two parallel lines 0.4 cm apart with a dashed centreline. Add a boom 4 cm long at 3 cm above the upper deck. Check verticality.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Original task 4 / independent drawing and calculation

Task 4

In a labeled cutaway side view, use local coordinates with mast base (0,0), x increasing toward the stern, and y upward. The upper deck passes through forward point (-2,-0.25), mast base (0,0), and aft point (2,0.25). Draw the mast on x=0 and a 4 cm-high, 5 cm-long boom from (0,4) to (5,4). Draw thin lines from the boom end to those two deck points. Measure the vertical separation of the lines at x=3.5 and x=4 cm and check whether the difference between those gaps is under 0.5 cm. Do not measure at x=0.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

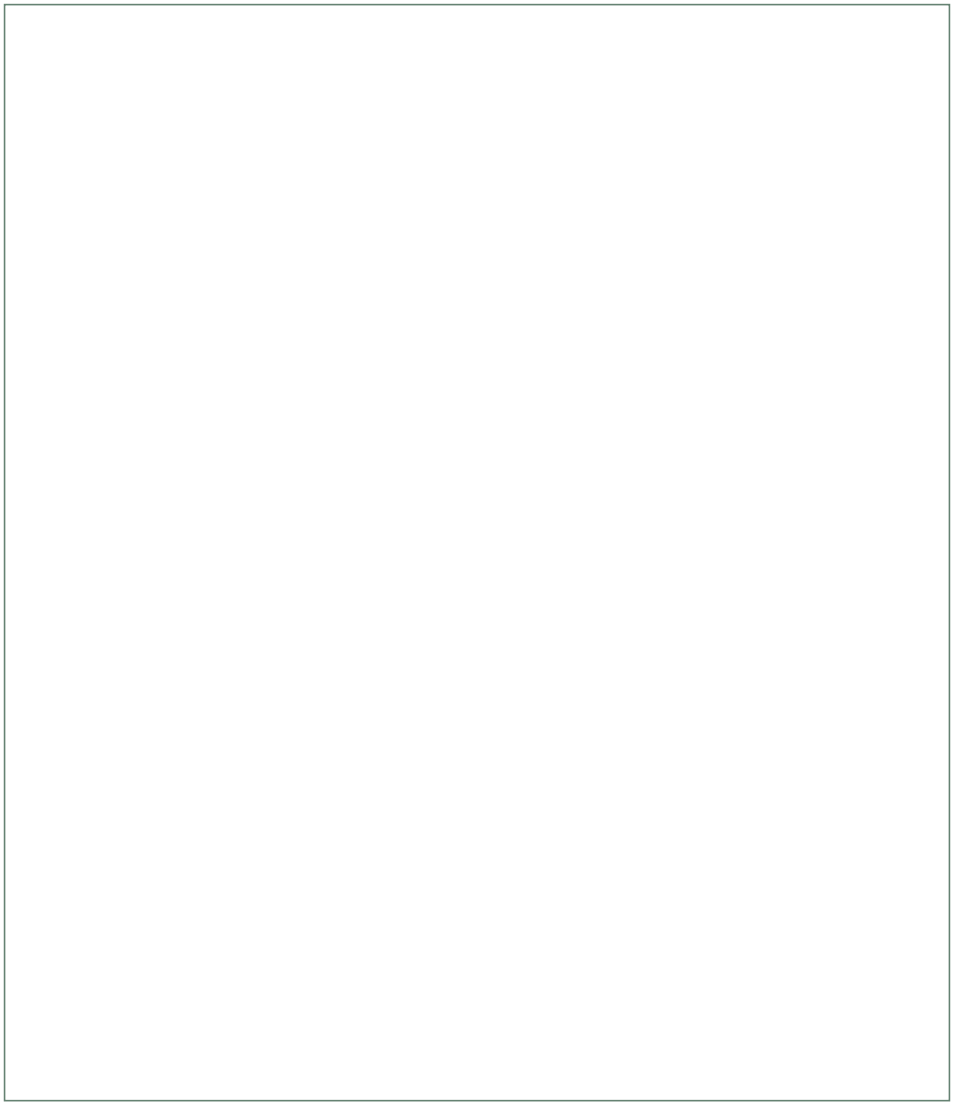
Full drawing sheet / reusable blank workspace

Reusable full drawing sheet for Tasks 1 to 4. Print another copy when needed. Keep all original task measurements; if a task specifies larger paper, use that paper size.

Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Task 1 / practice

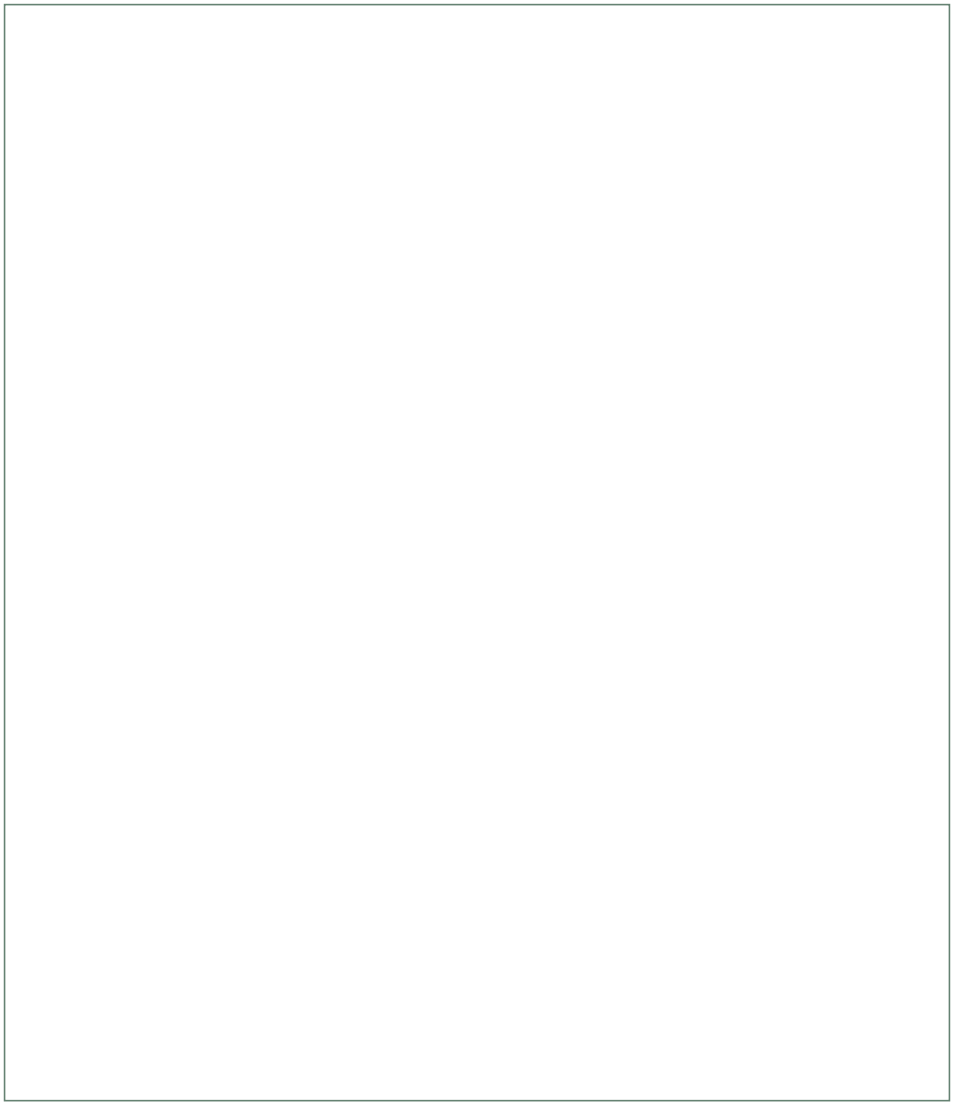
TASK 1 / In a cutaway side view, draw a hull 16 cm long and 5 cm deep. Place the deepest point on the vertical midline. Check the hull curve’s horizontal position at three stations (bow quarter, midship, stern quarter) relative to the midline and state your measured deviations.



Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Task 2 / practice

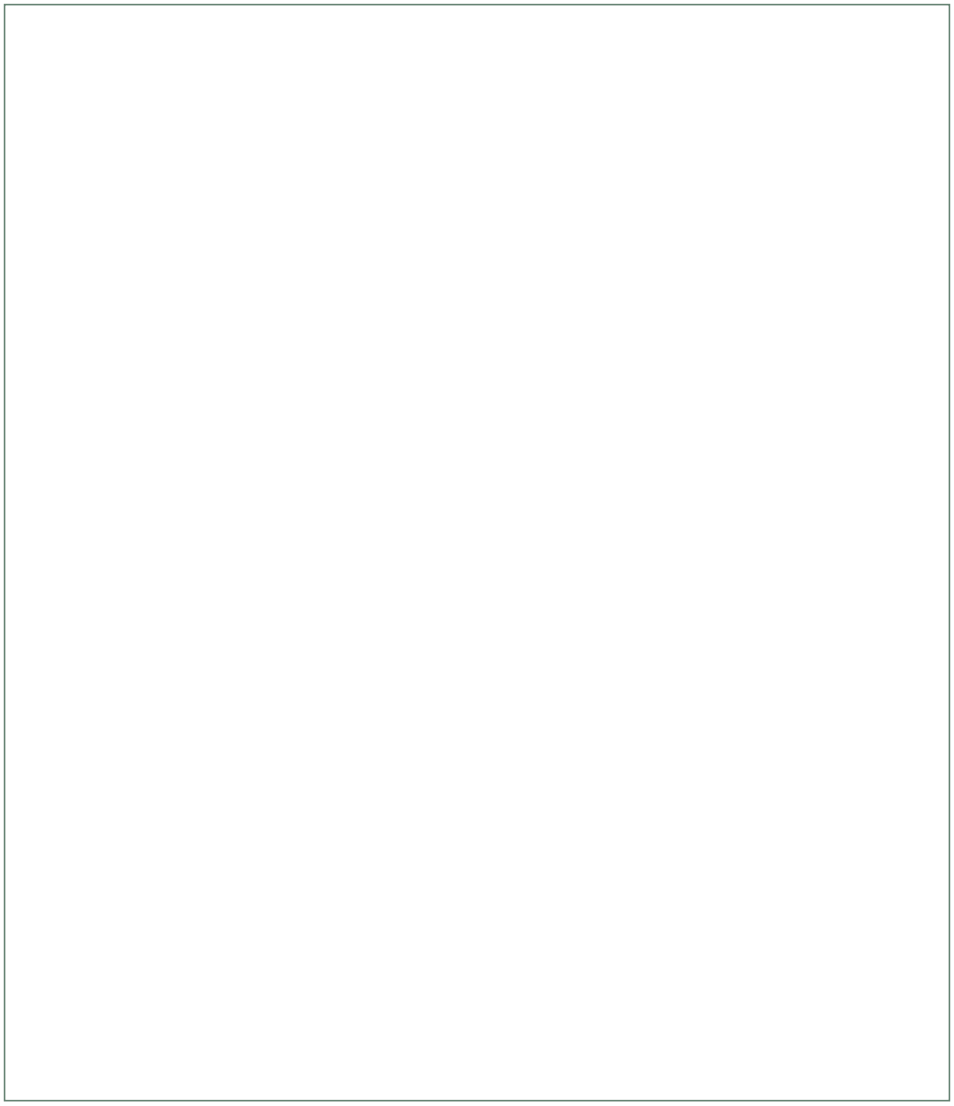
TASK 2 / In a labeled cutaway side view, place an upper interior deck line 2 cm below baseline at the stern and 2.5 cm below at the bow inside a hull of depth 5 cm. Add a second deck line 1 cm below and connect with short verticals. Measure spacing at three points.



Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Task 3 / practice

TASK 3 / In the same cutaway convention, draw a mast on the midline from the upper interior deck to 10 cm above it as two parallel lines 0.4 cm apart with a dashed centreline. Add a boom 4 cm long at 3 cm above the upper deck. Check verticality.



Draw a Generic Ship: Cutaway Hull, Deck, and Mast Construction

Task 4 / practice

TASK 4 / In a labeled cutaway side view, use local coordinates with mast base (0,0), x increasing toward the stern, and y upward. The upper deck passes through forward point (-2,-0.25), mast base (0,0), and aft point (2,0.25). Draw the mast on x=0 and a 4 cm-high, 5 cm-long boom from (0,4) to (5,4). Draw thin lines from the boom end to those two deck points. Measure the vertical separation of the lines at x=3.5 and x=4 cm and check whether the difference between those gaps is under 0.5 cm. Do not measure at x=0.

