Orthographic Car Drawing: Front, Side, and Top Views

Original task 1 / independent drawing and calculation

Task 1

A side view shows the front wheel center at 1.0 unit and the rear wheel center at 3.4 units from the front bumper. The stated wheelbase is 2.4 units. Is the drawing consistent? Explain.

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.

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Original task 2 / independent drawing and calculation

Task 2

In a front view, the body width is drawn as 2.0 units. In the top view, the maximum body width is drawn as 1.8 units. What is the most likely error, and how would you fix it?

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.

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Original task 3 / independent drawing and calculation

Task 3

A car has height 1.1 units and wheel diameter 0.6 units. In the side view, the roofline peak is at 1.1 units from the ground. In the front view, the roofline peak is drawn at 1.3 units from the ground. What check fails, and what should the front view roofline height be?

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.

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Original task 4 / independent drawing and calculation

Task 4

In a top view, the body outline is 4.2 units long. The front wheel center is at 0.8 units and the rear wheel center is at 3.2 units from the front edge. The stated wheelbase is 2.6 units. Is the top view consistent with the stated wheelbase? If not, what is the actual wheelbase shown?

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.

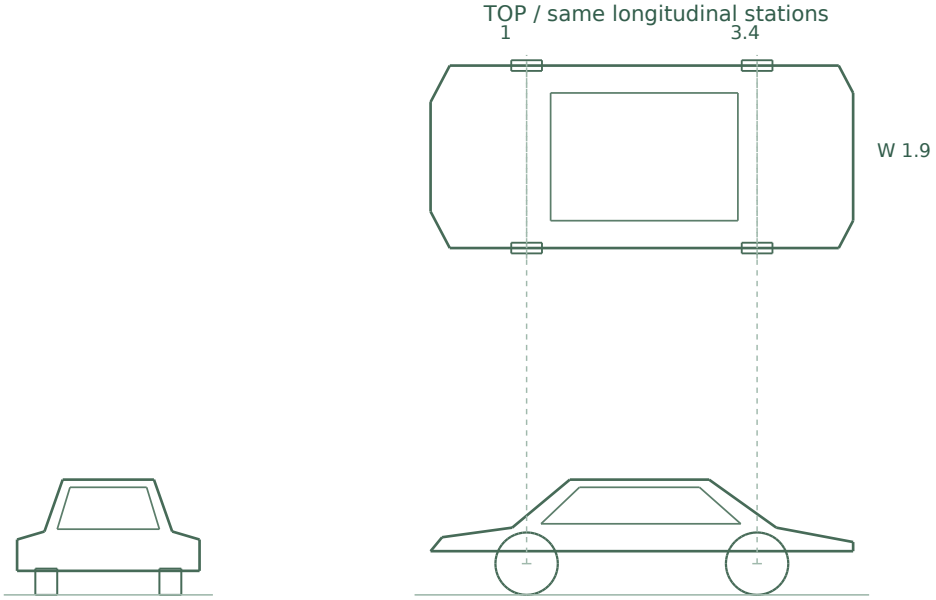
Full drawing sheet / reusable blank workspace

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.

Orthographic Car Drawing: Front, Side, and Top Views

Task 1 / practice

Generic car orthographic checks / 1 coordinate unit = 12.7 mm on this diagram

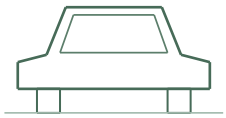


GIVEN positions only: calculate the wheelbase and compare with 2.4 units yourself.

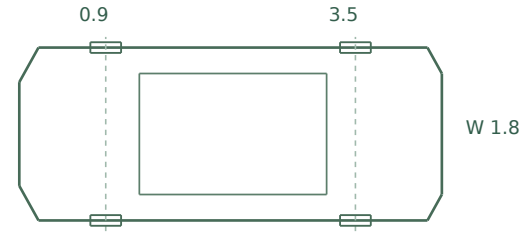
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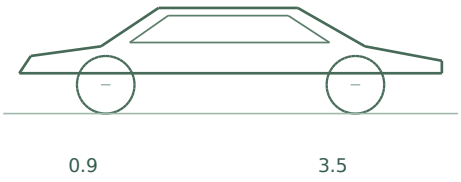
Task 2 / practice

Generic car orthographic checks / 1 coordinate unit = 12.7 mm on this diagram



W 2 / H 1.1



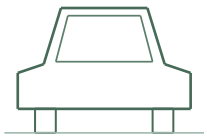


GIVEN / compare the two stated widths yourself.

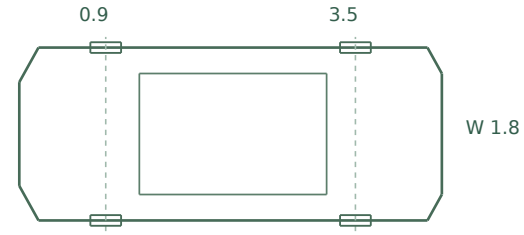
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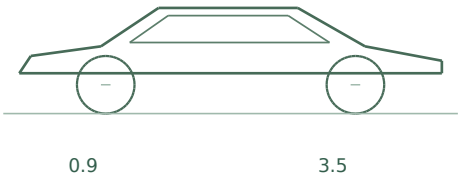
Task 3 / practice

Generic car orthographic checks / 1 coordinate unit = 12.7 mm on this diagram



W 1.8 / H 1.3



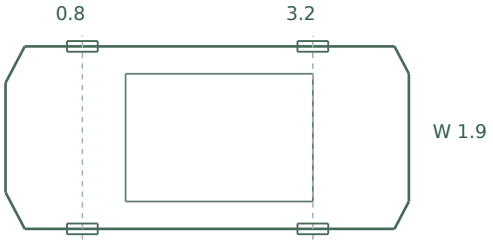


GIVEN / compare the side and front roof heights yourself.

Orthographic Car Drawing: Front, Side, and Top Views

Task 4 / practice

Generic car orthographic checks / 1 coordinate unit = 12.7 mm on this diagram



GIVEN stations 0.8 and 3.2 units on a 4.2-unit body. Compare their separation with the stated 2.6-unit wheelbase.