Draw a Wheel: Rim, Hub, and Spoke Layout Guide

Original task 1 / independent drawing and calculation

Task 1

Draw a wheel with rim radius 40 mm and hub radius 10 mm using 8 evenly spaced spokes. State the spoke spacing and the hub-to-rim ratio.

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

Draw a wheel with rim diameter 100 mm and hub diameter 30 mm using 12 evenly spaced spokes. State the radii, spoke spacing, and ratio.

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

Draw a wheel with rim radius 60 mm and hub radius 20 mm using paired spokes: two spokes 10 degrees apart, with pair centers repeated every 60 degrees for 12 total spokes. State the pair spacing and check that 12 spokes fit the pattern.

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

Draw a wheel with rim radius 45 mm and hub radius 18 mm using 9 evenly spaced spokes. State the spoke spacing and ratio, and note whether the hub ratio falls within the accepted alternative range of 1:2.5 to 1:3.5.

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.