Draw a Bass Drum: Shell, Hoops, and Tension Rods

Topic reference / ordinary illustration



Ordinary topic reference. Hypothetical dimensions in the four tasks are supplied in their own text; this illustration is not their measured answer.

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Worked example / complete source key

Using the lesson convention, describe how to place the front hoop and four tension rods on a bass drum with a 60-unit head diameter, 40-unit shell depth, and 4-unit hoop thickness.

Answer: Draw the front head ellipse 60 units wide and 40 units tall. Offset it outward by 4 units to make the front hoop ellipse 68 units wide and 48 units tall, drawn as a narrow band. Mark top, bottom, left, and right on the hoop, then place four rods at those cardinal points, each 10 units long and angled outward. Check that the band width is 4 units at all four points and that rod lengths match.

Reason: The hoop offset is applied equally on all sides, so the axes increase by 8 units total. Four rods at cardinal points give even spacing for this simplified example. The check method compares measured band widths and rod lengths.

Check: Measure the hoop band at top, bottom, left, and right; each should be about 4 units. Measure each rod; each should be about 10 units. Confirm the front head axes are 60 and 40 units.