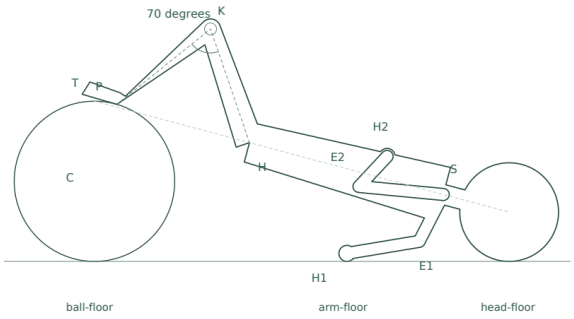
Draw a Lying Ball Knee-Tuck Pose: Placement, Angles, and Checks

Ordinary topic reference / separately checked pixels

Drawing constraints, not exercise instruction / exact contacts and acute-angle checks

GENERIC CHANGED HIP STATION80 mm / legs60+60 mm / actual knee70 degrees / PRINT1:2



Key: F floor / C centre / T top / H hip / K knee / P surface / S shoulder / E1,E2 elbows / H1,H2 hands

Task4 qualitative arm-placement illustration. This explicit GENERIC VARIANT moves the hip to80 mm along the15-degree midline; it is NOT the infeasible original40 mm worked station. Both leg centreline lengths are60 mm and the actual interior knee is70 degrees. The tapered leg/foot skin stays outside the ball and touches at P. One arm/hand rests along the floor, the other bends to the chest; neither hides P. Head and floor-hand contacts really touch y=0. No anatomical or exercise-safety standard is asserted.

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Original worked example / unchanged complete key

Prompt: On a grid with 2 cm squares, draw the pose plate: floor line, ball circle with bottom on the floor, midline angled 15 degrees, hip point one ball-radius from the ball top, thigh 6 cm, lower leg 6 cm, knee angle 70 degrees, one arm along the floor, one bent to the chest. Label all contacts.

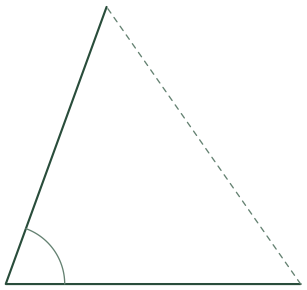
Answer: No exact plate satisfies all the stated constraints under this side-view convention. Choose centimetres, floor y=0, ball centre C=(0,4), top T=(0,8), and the body toward positive x. A hip one radius along the 15-degree downward midline is H=(4 cos15°, 8 - 4 sin15°), about (3.864,6.965). For foot P on the upper body-facing circle quadrant, HP cannot exceed 4 cm. But two 6 cm segments meeting at a 70-degree interior knee angle require HP = 12 sin35°, about 6.883 cm. Therefore 6.883>4 proves the original worked constraints are incompatible. Do not draw a false 70-degree label or a shin through the ball. As an explicitly CHANGED optional construction, keeping the same ball and hip but using 3 cm thigh and 3 cm lower leg permits a 70-degree knee and an upper-front surface contact with the knee above the ball. Mark that change; it is not a solution with the original 6 cm segments. Arm/contact labels and the letter key can be practised on that changed construction.

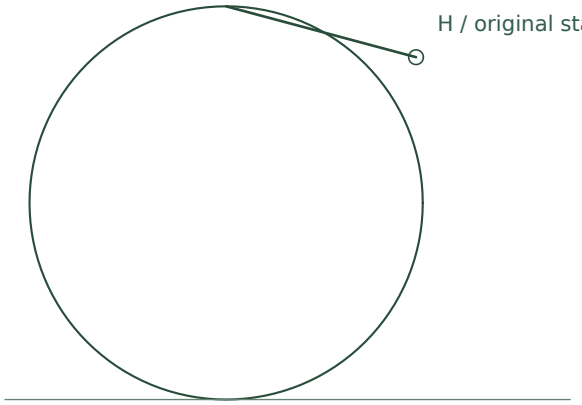
Draw a Lying Ball Knee-Tuck Pose: Placement, Angles, and Checks

Worked diagram / reference

Drawing constraints, not exercise instruction / exact contacts and acute-angle checks

60 / 60 mm at70 degrees





Required HP =68.829 mm

Max upper-front HP =40 mm

The original worked givens cannot all hold at once. Ball C=(0,40), top T=(0,80), H one radius40 mm down the15-degree midline gives H=(38.637,69.647). Any upper body-facing contact is at most40 mm from H. Equal60 mm legs at70 degrees instead require HP=120 sin35=68.829 mm. This page honestly diagnoses the incompatible original example; it does not pretend the generic changed plate satisfies that hip station.