How to Draw an Ellipse on the Floor with String and Stakes

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

Hypothetical example: lay out an ellipse with major axis 400 cm and minor axis 240 cm. Find the focal distance, stake positions from centre, and string loop length.

Answer: a = 200 cm, b = 120 cm. Focal distance = square root of (200 squared minus 120 squared) = square root of (40000 minus 14400) = square root of 25600 = 160 cm. Stakes are 160 cm from the centre along the major axis. Loop length = 400 + 2 times 160 = 720 cm.