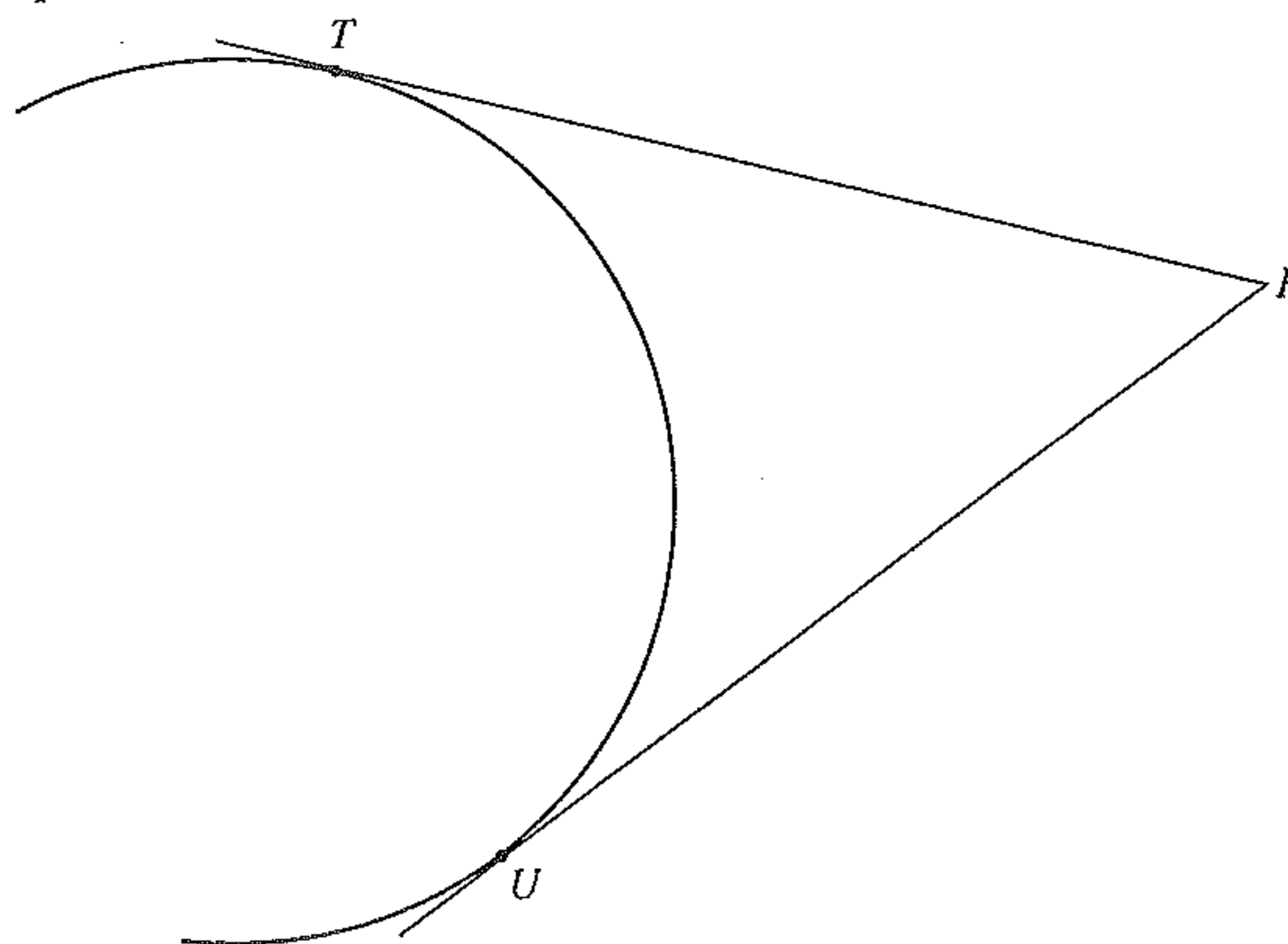


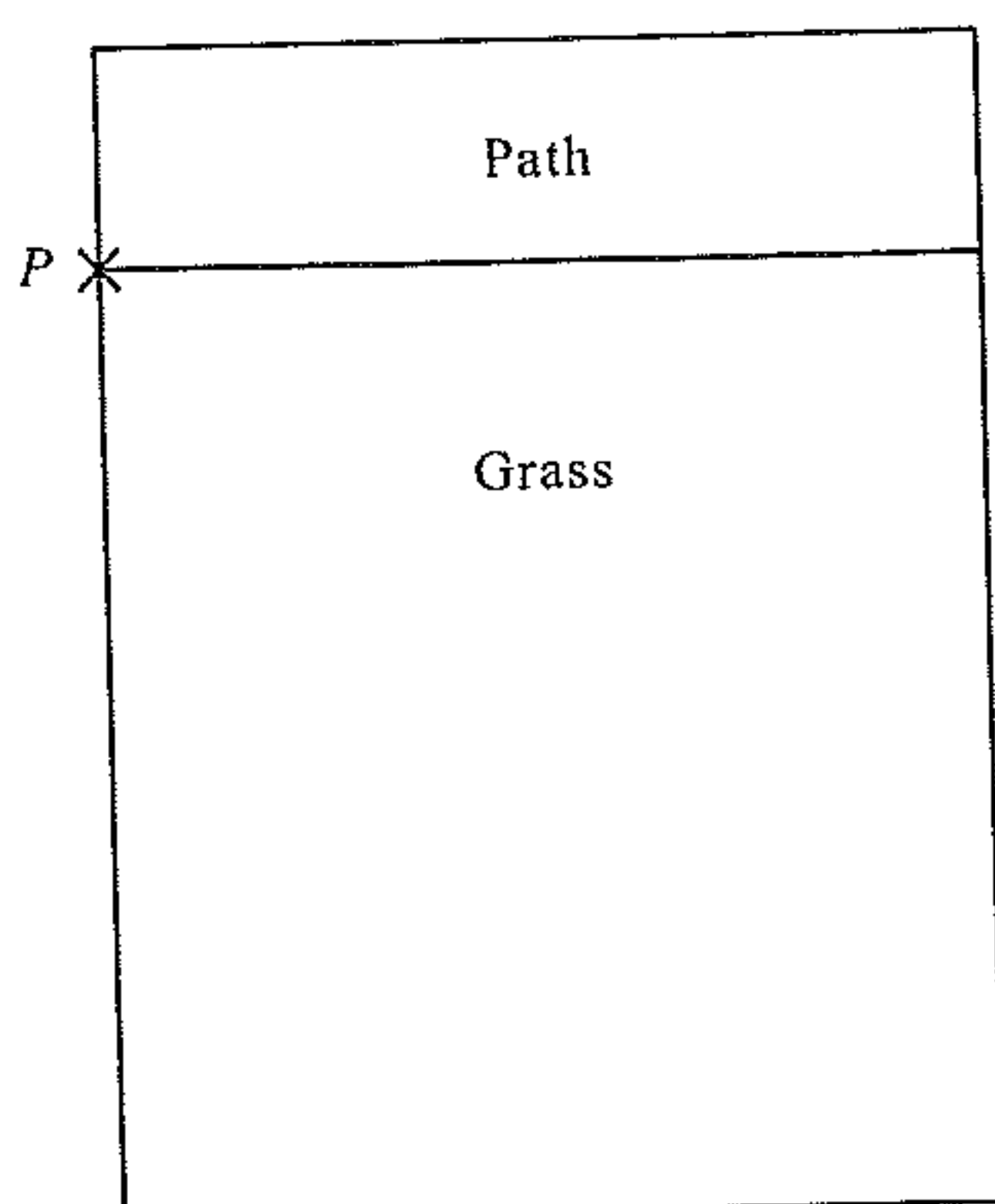
15



PT and PU are tangents to an arc of a circle at T and U .

- (a) Using a straight edge and compasses only, construct the bisector of angle TPU . [2]
- (b) By drawing another line accurately, find the centre of the circle and label it O . [2]

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The diagram, drawn to a scale of 1 cm to 1 m, shows a garden made up of a path and some grass. A goat is attached to a post, at the point P , by a rope of length 4 m.

- (a) Draw the locus of all the points in the garden that the goat can reach when the rope is tight. [1]
- (b) Calculate the area of the grass that the goat can eat.

Answer(b) m^2 [2]