



The diagram illustrates a point $(x_0, 0)$ located on a curve. The curve is thick and black, passing through the point. A gray wedge-shaped region is centered at the point, with its vertex at $(x_0, 0)$. The curve is tangent to the upper boundary of the wedge at this point. The curve continues upwards and downwards from the point, curving away from the wedge's boundaries. The label $(x_0, 0)$ is placed to the left of the point.

$(x_0, 0)$