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A knot diagram can be divided by a circle into two parts, such that each part can be coded by a planar tree with integer weights on its edges. A half of the number of intersection points of this circle with the knot diagram is called the girth. The girth of a knot is then the minimal girth of all diagrams of this knot. When the girth of a knot is small, it is possible that the span of the Jones polynomial is equal to the minimal crossing number of the knot. In this way, we will find infinite families of non-alternating knots whose minimal crossing numbers are determined by the spans of their Jones polynomials. (Received February 13, 2006)