

Let them be $a\sqrt{2}-b\sqrt{2} = (a-b)\sqrt{2}$ within $1/m$ when taken modulo 2π . Consider a multiple of $(a-b)\sqrt{2}$. If we make $1/m$ arbitrarily small, then we can consider a multiple: $d(a-b)\sqrt{2}$ to be within $1/m$ of any real number modulo 2π . (a, b, d are integers)