

YOU & MATHS **Play the right chord** Let P be a point that belongs to the inside of a circle. Draw the chord that has P as its midpoint.

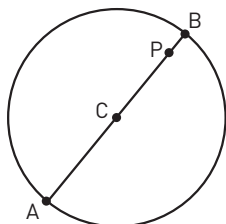
If P is the centre of the circle, any diameter satisfies the request.

Let us now suppose that P is not the centre of the circle.

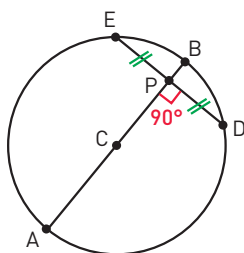
We recall that if a chord and a diameter are perpendicular, the diameter divides the chord in two equal halves.

We use this result to find the chord that we are looking for.

Let C be the centre of the circle and let AB be the diameter that passes through point P .



Now let DE be the chord perpendicular to AB that passes through P .



Thanks to the mentioned theorem, P is the midpoint of DE .