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General equation of a sphere centred at point  and radius is given by



We are given diameter of sphere  where 

As centre is midpoint of the diameter, so coordinates of centre are



So, sphere is centred at point 

Now, As is centre of sphere and is point on sphere.

Radius of sphere () = distance between  and  =

Using distance formula,





So, required equation of sphere with centre and radius  is



**Hence, required equation of sphere is **