Writing the Equation of a Circle: Guided Notes

# Explain

|  |  |
| --- | --- |
| A picture containing bubble  Description automatically generated  (0 , – r)  (0 , 0)  (r , 0)  (– r , 0)  (0 , r) | Equation of a Circle |
| x 2 + y 2 = r 2 |
| **center:** (0 , 0) |
| **radius:** r |
|  |  |
| A picture containing bubble chart  Description automatically generated  diameter  (h , k)  radius | Equation of Any Circle |
| (x – h) 2 + (y – k) 2 = r 2 |
| **center:** (h , k) |
| **radius:** r |

**1)** Write the equation of a circle that has  and  as the endpoints of its diameter.

**2)** What is the center and what is the radius of ?