

## Circles Round 2

$$x^2 + y^2 = r^2$$



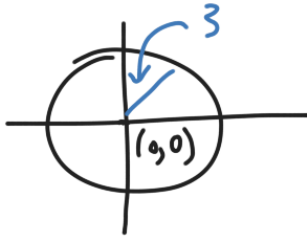
"Circle"

The set of all points equidistant from a specified center.

$$x^2 + y^2 = 9$$

$$r^2 = 9$$

$$r = 3$$

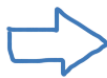


shifting the circle

Ex 1  $x^2 + y^2 = 9$  graph:

$$(x-1)^2 + (y+2)^2 = 9$$

find the center  $(h, k)$   
 $(x-h)^2 + (y-k)^2 = r^2$   
↑            ↑  
opposite    opposite



Find the radius  
(easy way)



Draw the circle and be satisfied with life



plot center then radius in all directions



Ex 2 graph the circle  $x^2 + y^2 - 2x - 10y + 25 = 0$

