***MAT 110 – Practice Sheet***

***Circle***

1. Find the equation of the circle with

(*i*) centre (-2, -1) and radius 4, (*ii*) centre (9, 0) and radius 1,

(*iii*) centre (0, 0) and radius 5.

1. Find the centre and radius of the following circles:



1. Find the equation of the circle passing through the points:



1. If the two circles  and  touch each others show that 
2. For what values of  does the straight line  touch the circle 
3. Find the equation of the circle through the intersection of the circles  and  which touches the straight line 
4. Find the equation of the tangents to the circle  which are parallel to the straight line 
5. Show that the circles  and  touch one another at 