*(C2-4.2)* Name:

# Homework Questions 2 – Perpendicular Bisectors from Chords

1. The Line PQ is a diameter of a circle centre C where P(1,2) and Q(3,4). The line T passes through C and is perpendicular to PQ.
a) Find the midpoint of PQ
b) Find the gradient of PQ
c) Hence find the equation of T

2. The Line RS is a diameter of a circle centre P where R(-1,-2) and S(6,-5). The Line L passes through P and is perpendicular to RS, find the equations of L in the form ax+by+c=0, where a,b and c are integers.

3. The Line AB is a chord on the circle with centre (3,-2). If A(6,-2) and B(3,1). The line L is perpendicular to AB and bisects it. Find the equation of L give your answer in the form y=mx+c

4. The points R(-2,5) S(2,1) T(-6,1) lie on the circumference of a circle. Find the equation of RS and RT and hence find the coordinate of the centre of the circle