

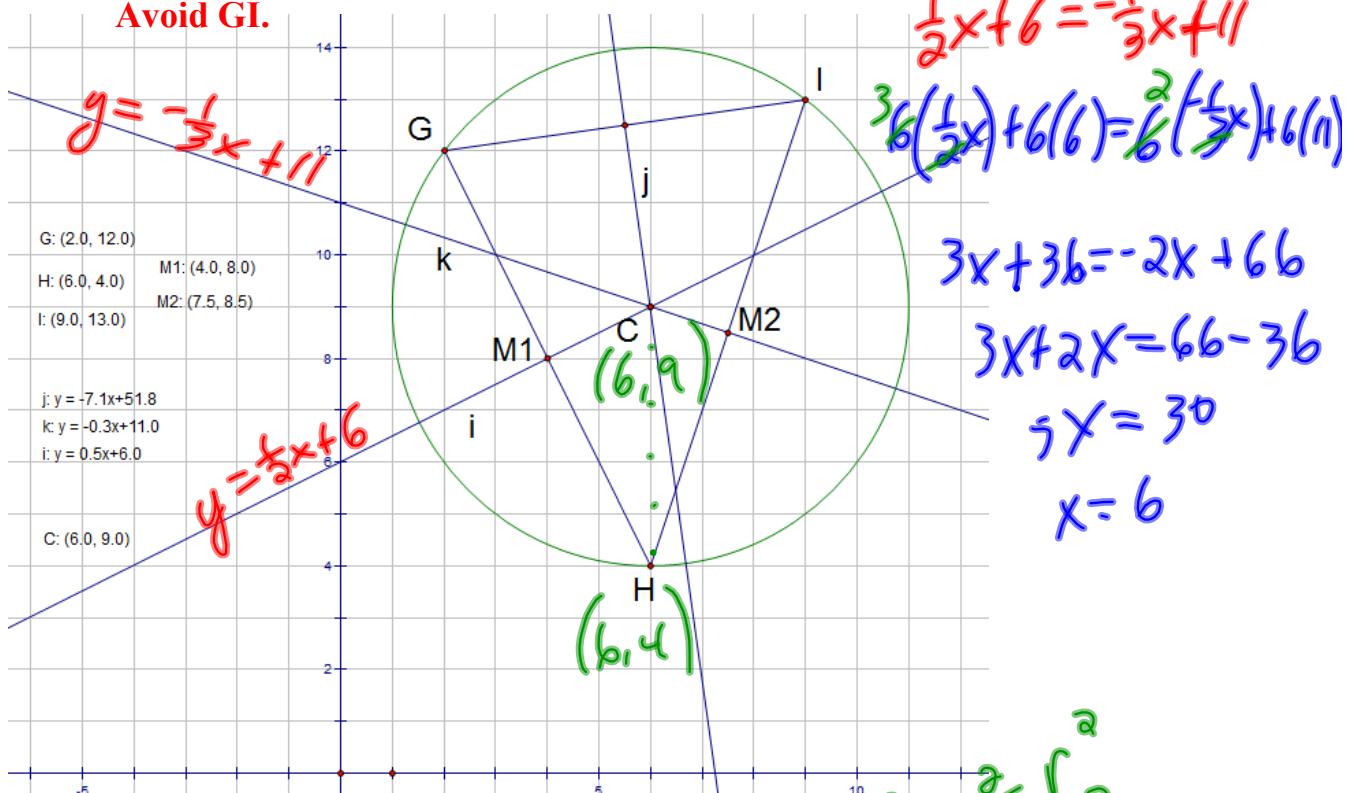
MPM 2DI

## 3.5 Properties of Circles (Extra)

Date: \_\_\_\_\_

Ex. Given the points G ( 2 , 12 ), H( 6 , 4 ) and I( 9 , 13 ):

- Find C, the centre of the circle through G, H, and I.
- Determine the length of the radius of the circle.
- IF this circle were centred at the origin, write its equation.

**Hint:****Avoid GI.**

$$\begin{aligned} \frac{1}{2}x + 6 &= -\frac{1}{3}x + 11 \\ 3(1/2)x + 6(6) &= 6(-1/3)x + 6(11) \\ 3x + 36 &= -2x + 66 \\ 3x + 2x &= 66 - 36 \\ 5x &= 30 \\ x &= 6 \end{aligned}$$

$x^2 + y^2 = r^2$   
 $x^2 + y^2 = 25$