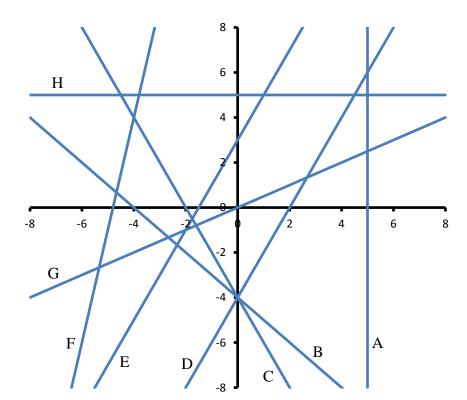
Coordinate Geometry Quiz

Level 1 – 2

1. Match the equations with the lines by writing the correct letter next to each equation.



$$y = 2x - 4 \qquad \dots$$

$$y = 2x + 3$$

$$y = 5$$

$$y = -x - 4$$

$$y = -2x - 4$$

$$x = 5$$

$$y = x/2$$

$$y = 5x + 24$$

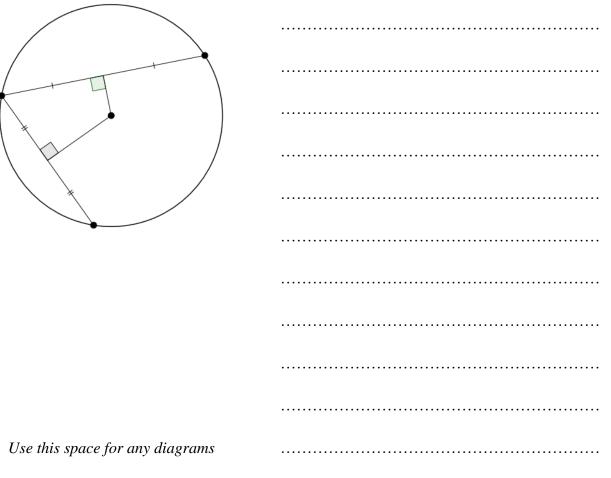
2. Determine i) the coordinates of the midpoint and ii) the length of the line connecting the following points:

- a) (2,3) and (6,3)
- i)
- ii)
- b) (6,1) and (6,8)
- i)
- ii)
- c) (-1,2) and (5,10)
- i)
- ii)

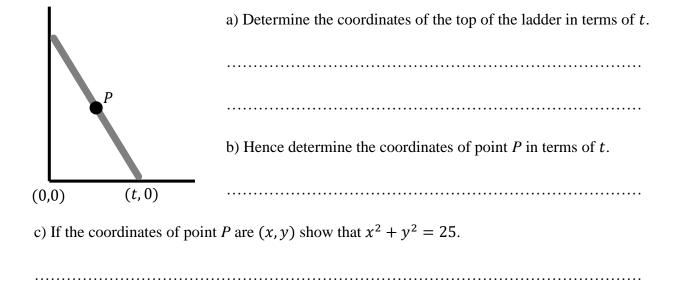
| 3. | Determine the equation of the line passing through the following points. Write your answer in the form $Ax + By + D = 0$. | | |
|----|--|--|--|
| | a) $(7,-1)$ and $(7,5)$ | | |
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| | b) $(2,-3)$ and $(4,-3)$ | | |
| | | | |
| | | | |
| | c) (3,6) and (5,2) | | |
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| | | | |
| | 1) (7.2) 1 (2.4) | | |
| | d) $(7,2)$ and $(3,-1)$ | | |
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| 4. | Determine the equation of the perpendicular bisector of the line connecting the points (2,5) and (6,7). Write your answer in the form $y = mx + c$. | | |
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| 5. | improve their response time | at points (3,8) and (9,5) where units are in km. City hall wishes to to emergencies by assigning firefighters from only the closest fire on of the line that separates the two areas of responsibility of the two |
|----|-------------------------------|---|
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| 6. | Determine the area of the sha | ape bound by the lines $x = 1$, $x = 3$, $y = x$ and $y = 8 - x$. |
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7. The points (5,-3), (2,-2) and (2,6) all lay on the circumference of a circle. Determine the radius of the circle and the coordinates of its centre. You may use the diagram on the left to help. Clearly show your method.



8. A ladder of length 10m is leaning against a wall. A man climbs half way up the ladder to point P when suddenly the ladder begins to slip. The coordinates of the base of the ladder are (t, 0).



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| d) Hence explain why point P follows the path of a circle of radius 5 m as the ladder slips. |
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