Name: _____

ASM Tuition Academy

Loci and Construction

Instructions:

* Use blank ink or ball point pen.
* Answers all Questions
* Answers the Questions in the space provided
* Diagrams are not accurately drawn, unless otherwise indicated
* you must show all your working out

Information:

* the mark for each questions are shown in brackets
use this as a guide as to how much time to spend on each question

Advise:

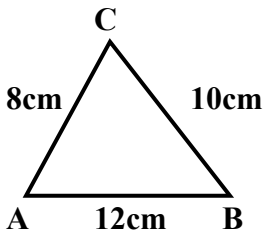
* Read each question carefully before you start to answer it
* Keep an eye on the time
* Try to answer every question
* Check your answers if you have time at the end

1. **Use ruler and compass to construct the Locus of points equidistant from A to B.**
   You must show all your construction lines.



(Total for question 1 is 2 marks)

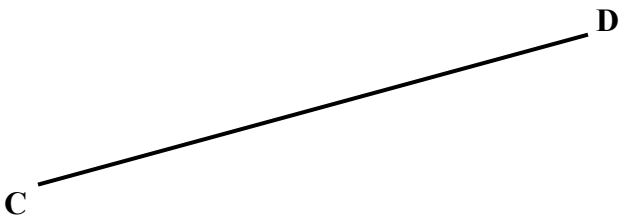
2. **ABC is a triangle.**
   AB = 12cm
   BC = 10cm
   AC = 8cm



Use ruler and compasses to construct an accurate drawing of triangle ABC.
You must show all your construction lines.

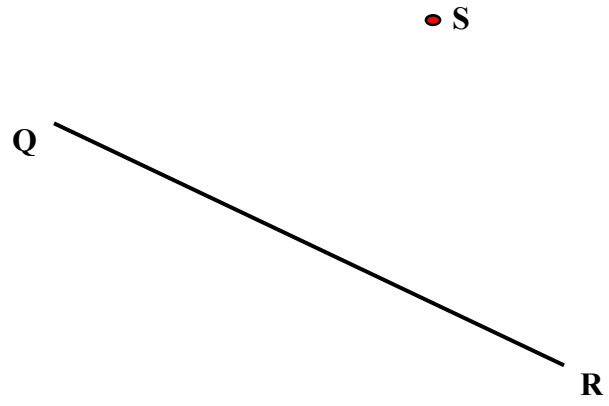
(Total for question 2 is 3 marks)

3. **Draw a line equidistant from points C and D**
You must show all your construction lines.



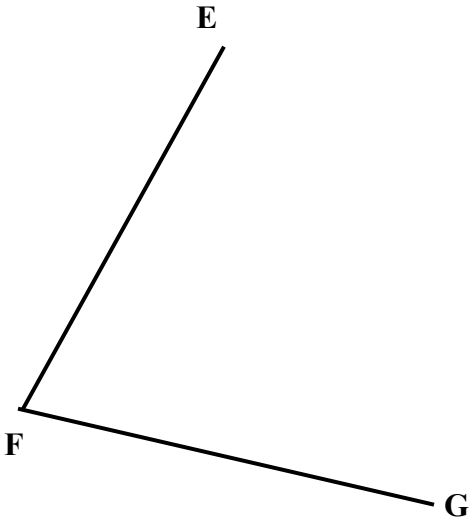
(Total for question 3 is 2 marks)

4. **Use ruler and compasses to construct a perpendicular line from S to line QR.**
You must show all your construction lines.



(Total for question 4 is 2 marks)

5. Use ruler and compasses to construct the bisector of an angle EFG.
You must show all your construction lines.



(Total for question 5 is 2 marks)

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6. Use ruler and compasses to shade the locus of points that are closer to point L than point M but less than 5cm from point M.
You must show all your construction lines.



(Total for question 6 is 2 marks)

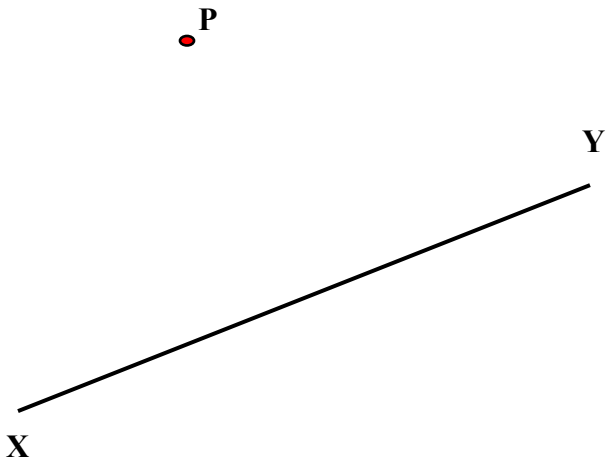
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7. **Here is a scale drawing of a garden.**
The scale is 1 cm to 2m
A tree is going to be planted.
The tree must be more than 6m from the patio.
The tree must be more than 8m from the pond.
Shade the region where the tree can be planted.



(Total for question 7 is 2 marks)

8. **Use a ruler and a compasses to construct a line perpendicular to the line XY that passes through the point P, shown below.**
You must show all your construction lines.



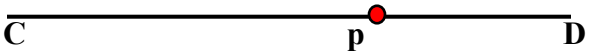
(Total for question 8 is 2 marks)

9. In the space below, use a ruler and compasses to construct an equilateral triangle with side length 9 cm.
You must show all your construction lines.

(Total for question 9 is 3 marks)

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10. Use ruler and compasses to construct a line perpendicular to CD that through the point P.
You must show all your construction lines.



(Total for question 10 is 2 marks)

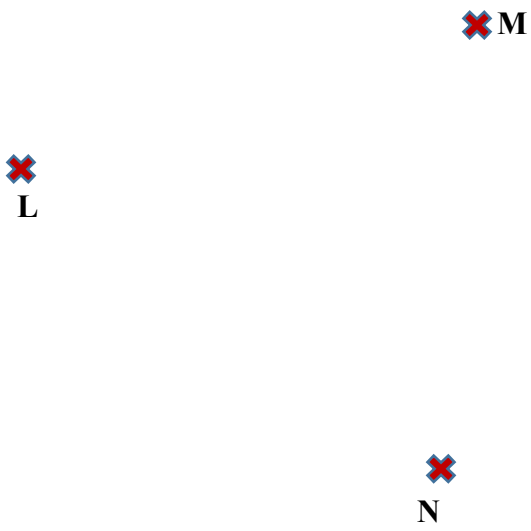
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11. In the space below, use a ruler and compasses to construct a 60° and 30° angle.
You must show all your construction lines

(Total for question 11 is 4 marks)

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12. L, M and N are three points on a map.
1 cm represents 100 m



Point P is 400 m from L.
Point P is equidistant from M and N.
On the map, show the possible positions of P.

(Total for question 12 is 3 marks)
