Constructions and Loci

Name:_____

Teacher: _____

Remember –

The angle bisector for ABC will create a line of points that are equidistant (the same distance away) from the lines AB and BC

The perpendicular bisector for the line AB will create a line of points that are equidistant from the points A and B

Using this booklet

- AB (two letters) refers to a line

- ABC (three letters) refers to an angle created by going from A to B and finishing at C, in a clockwise direction (the angle we be around B)

- If a (P) is on the right of a question, a protractor may be used, it MUST NOT be used for any other questions

- Other materials you may use include a ruler, a pair of compasses and a sharp pencil

1.   Bisect the angle ABC

A

C

B
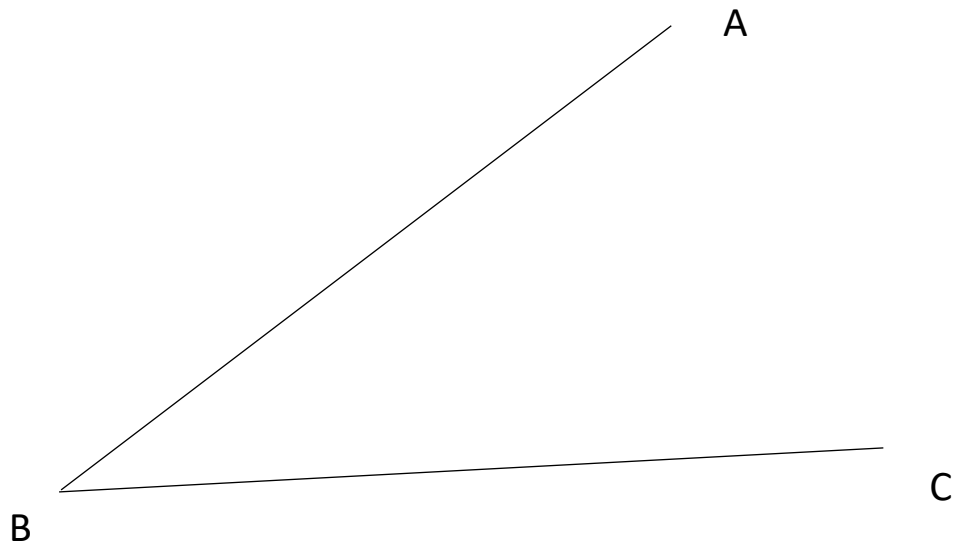
2.   Bisect the Line AB

A

B
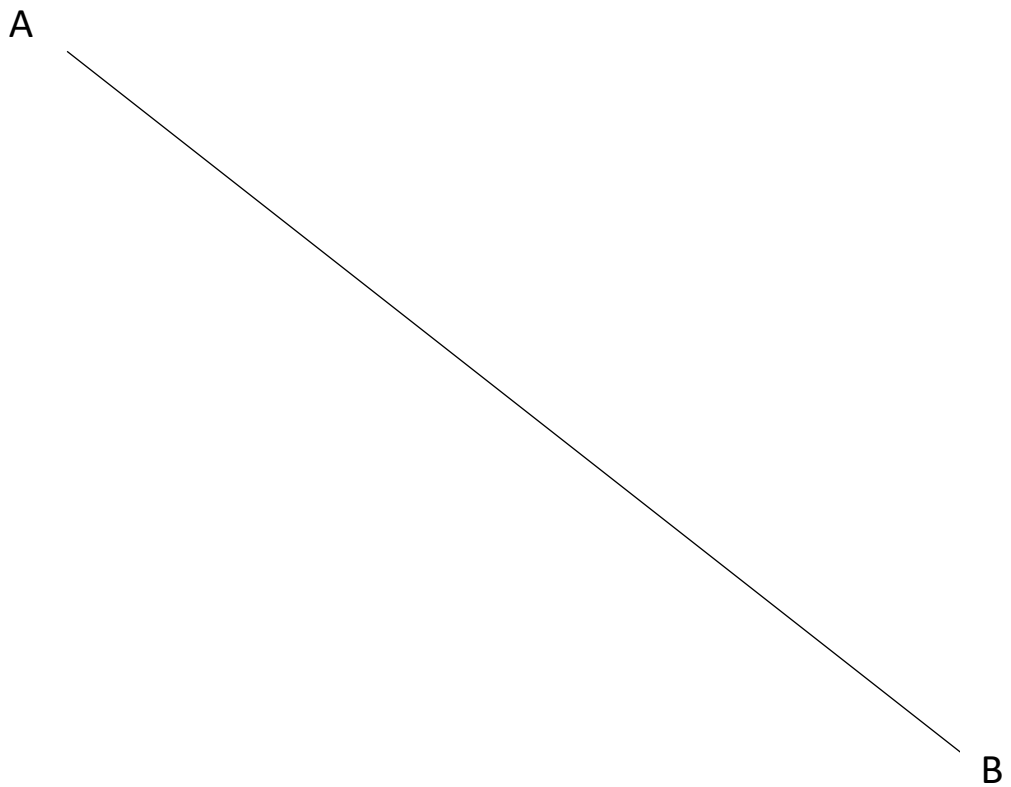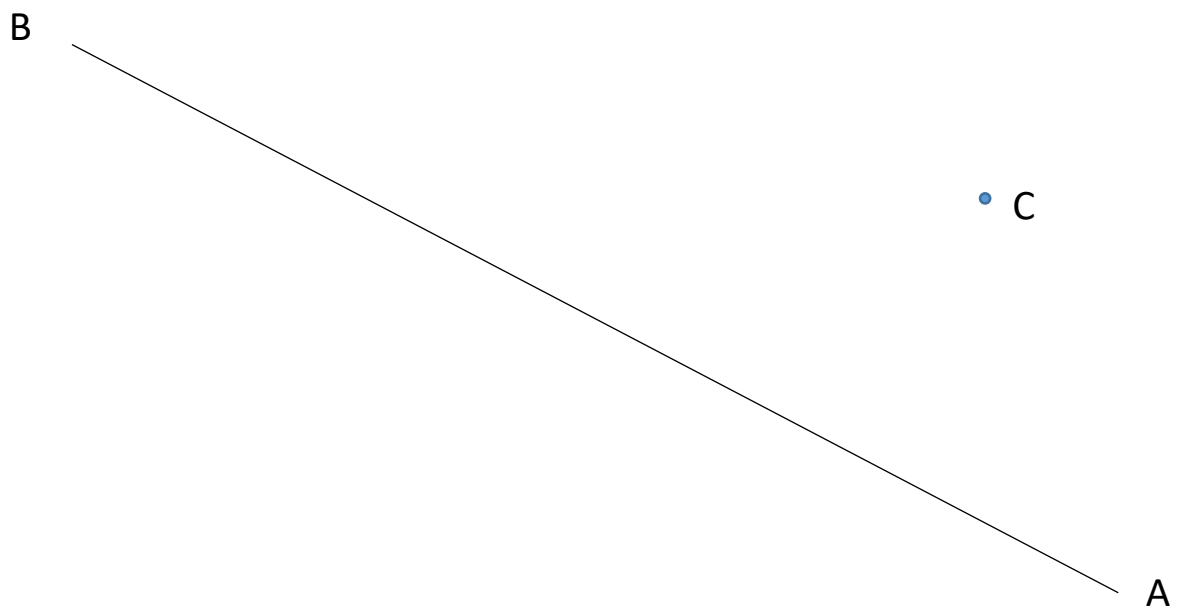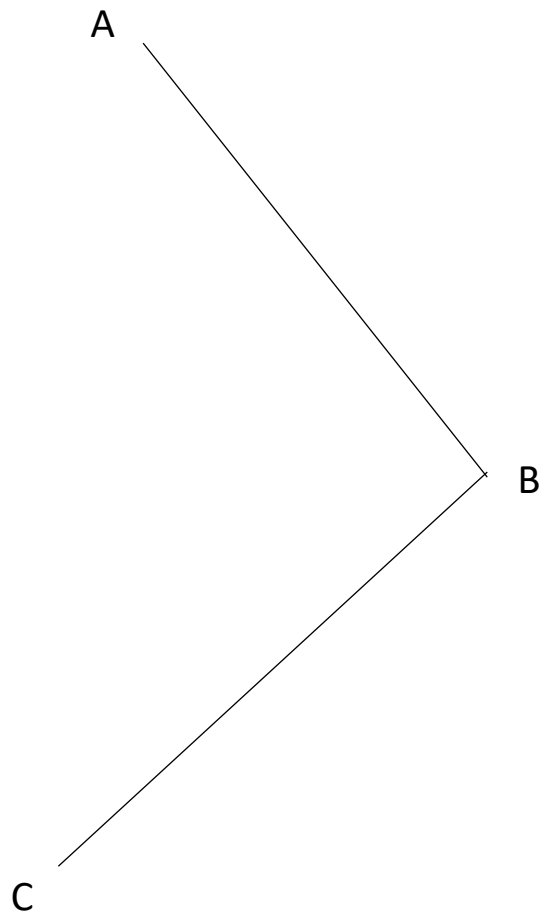
3.   Construct the triangle ABC where

AB = 10cm

BC = 8cm

AC = 6cm

4.   Construct the line that is perpendicular to AB and passes through the point C

B

• C

A

5.   Bisect the angle CBA

A

B

C

6   Construct the triangle where   (P)

AB = 7cm

ABC = 50°

CAB = 20°

7. Construct the triangle where (P)

AB = 7 cm
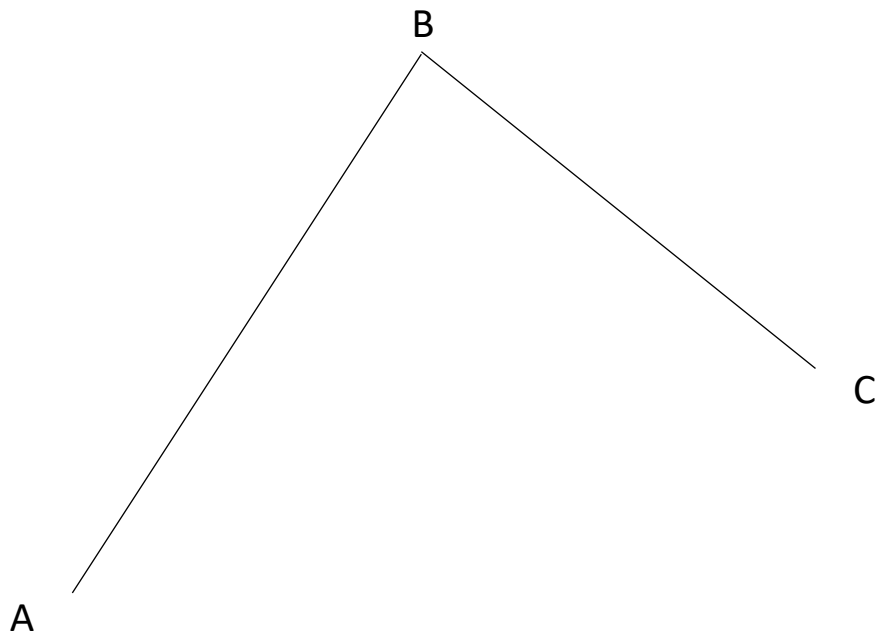
BC = 8cm

ABC = 43°

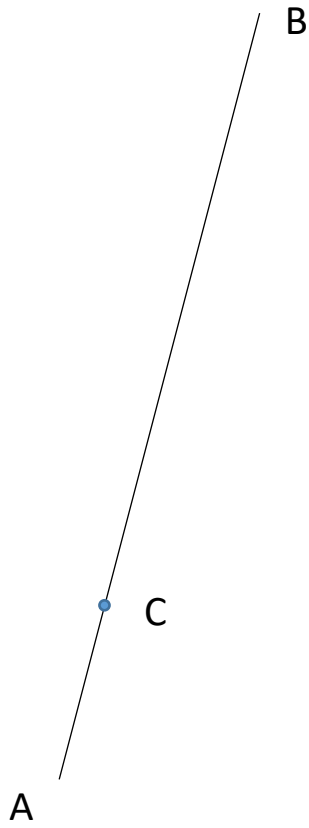8. Construct the perpendicular bisector for the line AB

A

B
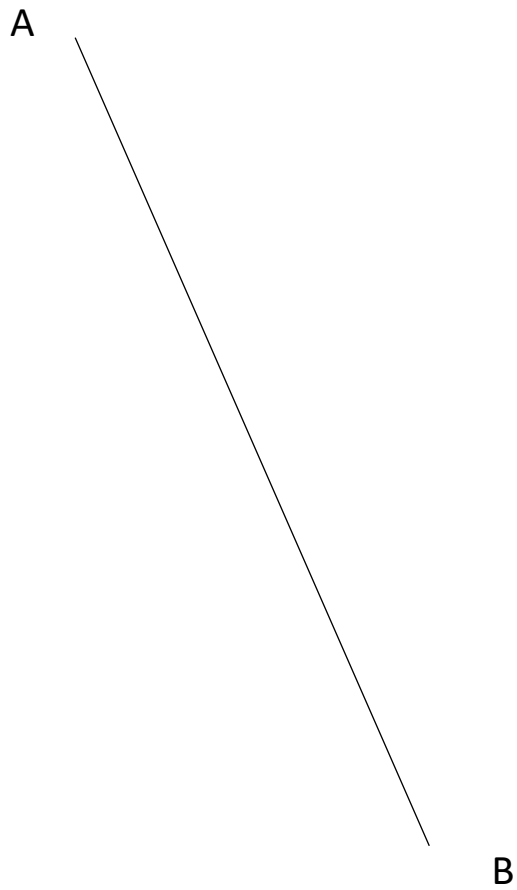
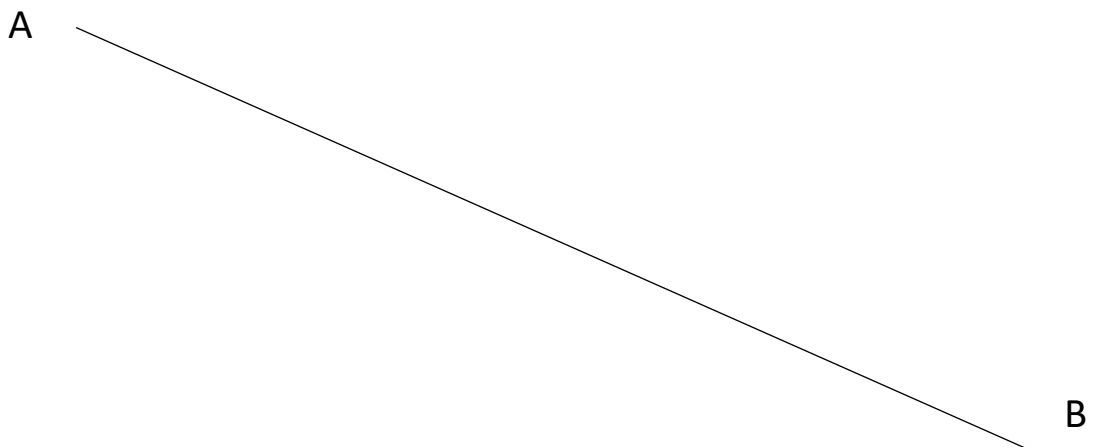9. Construct the locus of points which is equidistant from AB and BC

B

C

A

10. Construct the locus of points that is equidistant from B and C

A

B

C

11.   Construct the line that is perpendicular to AB and passes through the point C

B

C

A

12.   Construct a line that is parallel to AB and 3 cm away

A

B

13. Construct the triangle where   (P)

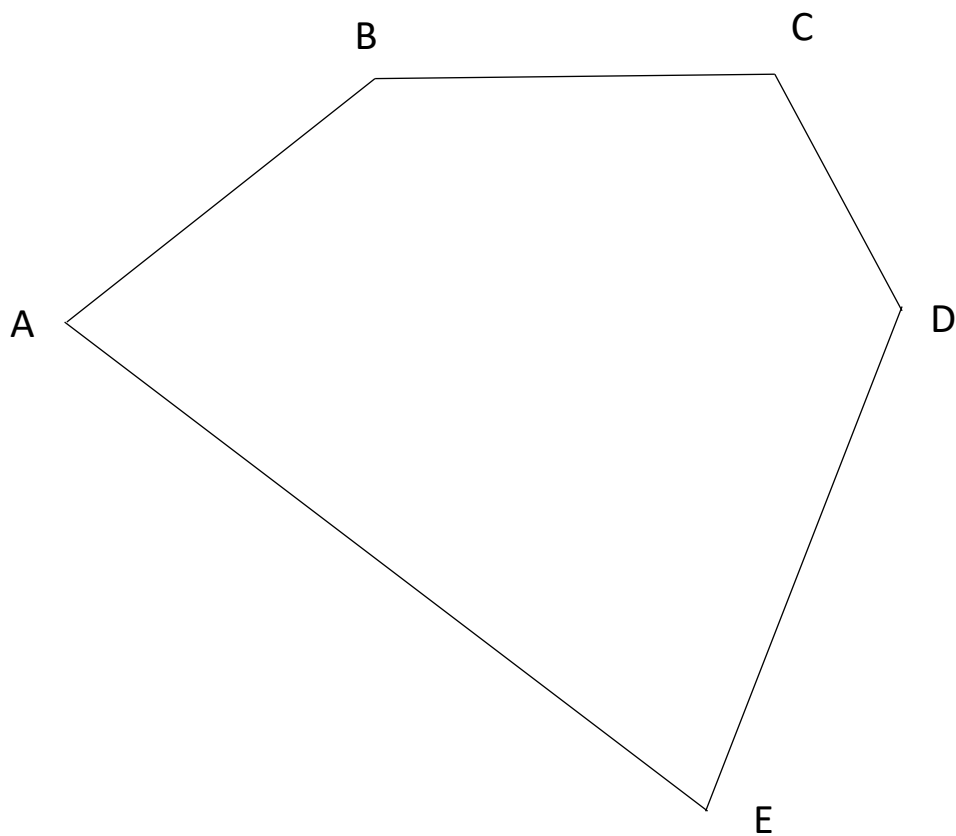ABC = 90°

AC = 7cm

BA = 4cm

14. By constructing an equilateral triangle, create and label a 60° angle

15.   Using the method in the previous question, construct and label a 30° angle
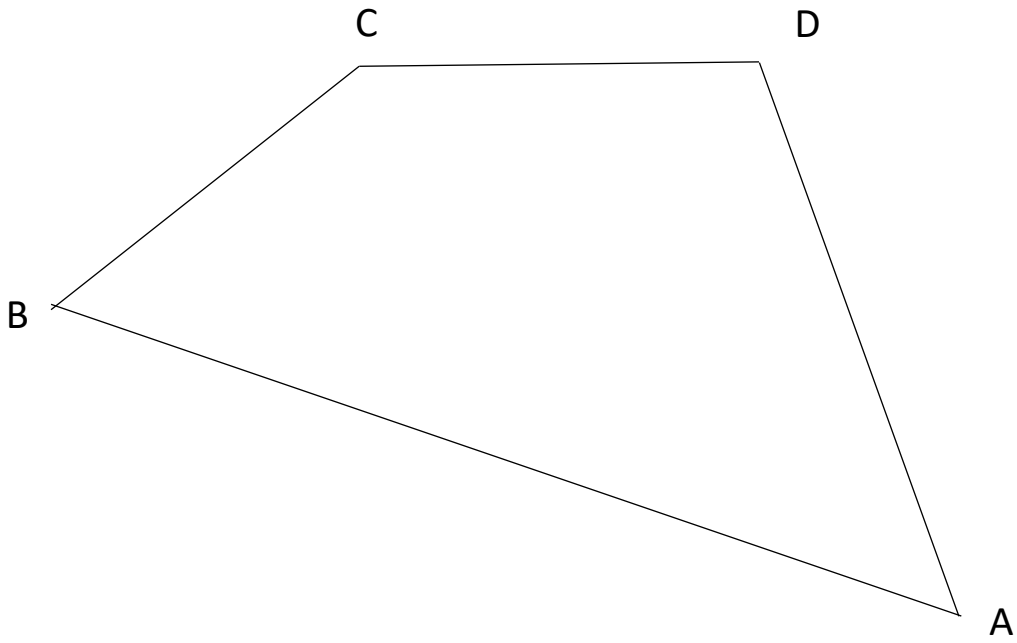
16.   Construct and label a 90° angle

17. Construct and label a 45° angle

18. Bisect the angle DEA

19.   Create the locus of points that passes through D and is perpendicular to the line AB

C   D

B

A

20.   Construct the triangle where   (no protractor)

ABC = 90°

AC = 5cm

BC = 3cm

21.   Without using a protractor, construct a triangle where

AB = 10cm

ABC = 30°

CAB = 45°