

GCSE Maths 2019/20

ASSIGNMENT Wk12

Preparatory Sheet

Required preparation for the session on.....

CONSTRUCTIONS, LOCI AND BEARINGS

Aims of this session: Review your abilities in each of these areas, Green (feel confident...G), Amber (need to work more on...A), Red (Feel weaker at this...R)

1. To be able to make accurate drawings of lines, angles and triangles using a ruler and a compass.
2. To be able to construct loci points using a compass
3. To be able to use a protractor to draw a bearing at a point or read/calculate a bearing.

G	A	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MOSTLY GREEN

MOSTLY AMBER

MOSTLY RED

START...

S11 <https://padlet.com/mathsm230774/k2ri207qeacu>

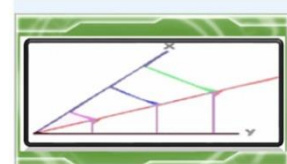
S20 <https://padlet.com/mathsm230774/4kpsyc70x191>



S11 Angles, Constructions and Bisect



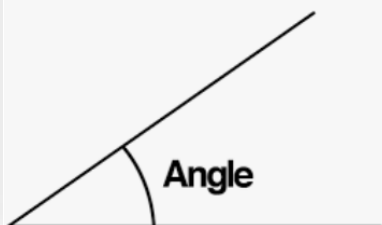
S20 Loci constructions



Write a comment about what you learned from the videos / materials below

1 To be able to make accurate drawings of lines, angles and triangles using a ruler and a compass.

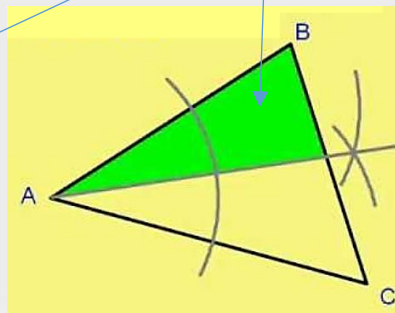
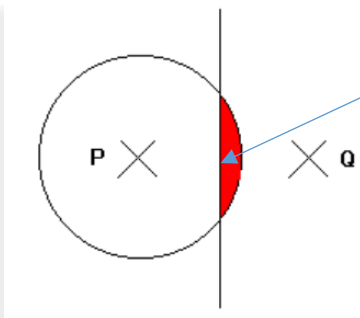
Q...Can you read an angle using a protractor? Can you use a compass to construct circles, arcs and triangles? In the space below try measuring the angle. Draw a circle. Draw on the line a 180 degree angle, cut it into 3x60 degrees angles, then draw 3 straight lines to create 3 equilateral triangles.



Hint: when measuring an angle you need the semi-circle protractor. Place the corner of the angle at 'zero' on the protractor. Read off the numbers in an arc from zero degrees.

2 To be able to construct loci points using a compass

Q... Loci points are positions that follow a rule, like 'further away from A than B' or 'the same distance from C and D'. Look at the images below, can you describe the shaded region in each case?



Hint... Remember to describe using words like 'inside the shape...' or 'nearer to line.....' etc.

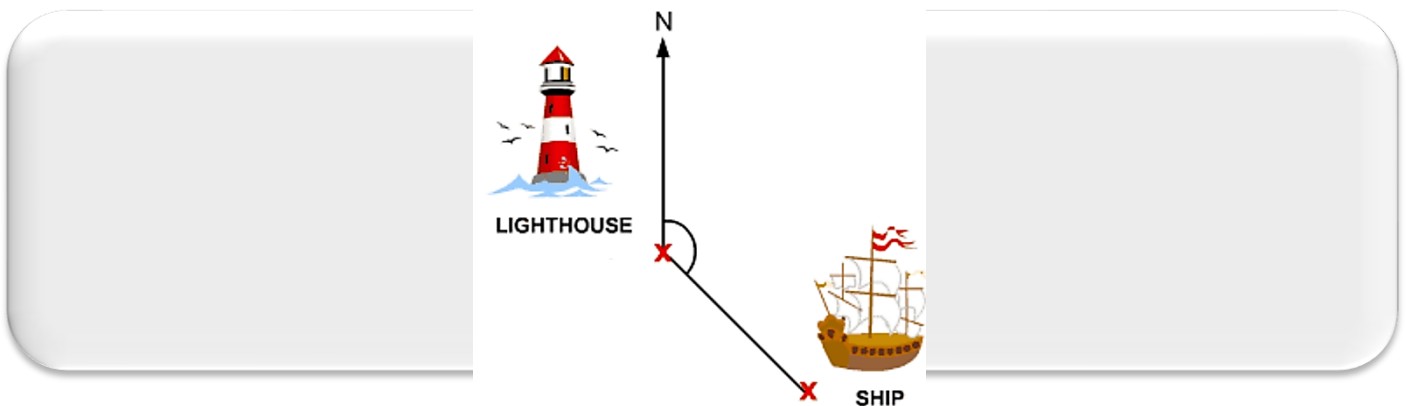
3 To be able to use a protractor to draw a bearing at a point or read/calculate a bearing

Now ..BEARINGS S22

<https://padlet.com/mathsmen230774/h9hpkwx3h8cy>



Q... Can you read a bearing that is given to you as a real-life problem, like the heading of one ship from another? Look at the image below and read the bearing from the lighthouse to the ship. Can you also get what the bearing it is from the ship to the lighthouse?



Hint... Use your protractor to measure the angle between north and the ship. This is the 'bearing' from the lighthouse to the ship. To get the other bearing, back from the ship to the lighthouse, you need to draw a new 'North line' pointing up vertically from the ship at 'x' and then take a reading of an angle all the way round from north to the lighthouse...this will be over 180 degrees!

END OF PREPATORY ASSIGNMENT

What to do now....

1. Ensure you have marked in each box if you feel confident in each topic or not (this will inform you and your tutor which activities you should do in the session)
2. Bring this yellow assignment with you to your next session and check with your tutor answers given
3. Add this to your folder of work IN ORDER YELLOW...GREEN... (and any BLUE you achieve)!

