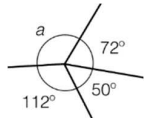
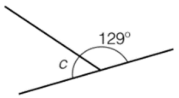
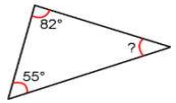
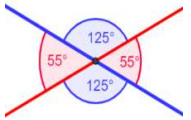
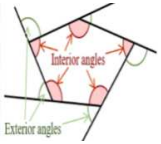
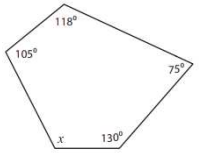
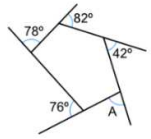
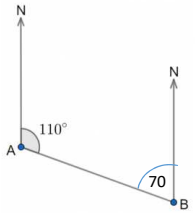
# KNOWLEDGE ORGANISER – YEAR 7 TERM 5

| | Topic | Information | Examples | Hegarty Clip |
|---|---|---|---|---|
| 1 | Fibonacci type sequences | A sequence where the next number is found by **adding up the previous two terms** | An example of a Fibonacci-type sequence is:<br>4, 7, 11, 18, 29 … | 263 |
| 2 | Angle rules | • Angles around a point sum to 360˚<br>• Angles on a straight line sum to 180˚<br>• Angles in a triangle sum to 180˚<br>• When 2 straight lines cross, vertically opposite angles are equal |  <br>a=360-(72+50+112)<br>a=126<br>  <br>c=180-129<br>c=51<br>  <br>?=180-(55+82)<br>?=43<br>  <br>Vertically opposite are equal | 812-814<br>477-478<br>485-487<br>480 |
| 3 | Angles in polygons | • A regular polygon has equal angles and equal sides<br>• The interior angle and exterior angle at a vertex add up to 180˚<br>• For a polygon with n sides, the sum of the interior angles = 180(n-2)<br>• The exterior angles of a polygon sum to 360˚<br>• In a regular polygon with n sides the size of each exterior angle is given by $\frac{360}{n}$ |  <br>  <br>Sum of interior = 180(5-2)<br>=540<br>$x$=540-(118+75+130+105)<br>=112<br>  <br>Sum of exterior = 360<br>$A$=360-(78+82+42+76)<br>=82 | 560-564 |
| 4 | Bearings | Bearings are always:<br>• Measured from the North<br>• Measured in a clockwise direction<br>• Measured at the place you are going <u>from</u><br>• Given as 3 figure bearings |  <br>The bearing of **B** <u>from</u> A is 110˚<br>The bearing of **A** <u>from</u> B is 290˚ | 492-493 |