Multiplication Arithmagons Stages 4 & 5

- If you multiply 2 of the numbers on the edges (in the rectangles) together and then divide by the other number in the edge, then **square root** the answer you then have worked out the value of the number in the vertex between the 1st two numbers (in the rectangles).
- If you multiply all the vertices together this gives you the square of the edges multiplied together.
- If you double two edges then you simply get a doubled vertex in between them. However if you double 1 of the edges then the product of this is an irrational number at the vertex (both vertices are affected by this in the same way. However if we times the edge number by a perfect square e.g. 9 then all the numbers are rational but they may not be whole. i.e.:



• It seems that it is impossible to get whole numbers in the edges with all fractions in the vertices. However it is possible with 2 and then easier with 1.