**Geometry Lesson 1-9: Students will construct a square and a rhombus.**

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**GEOMETRY NOTES Special Quadrilaterals Page 1-9**

**[1st] Can you write 100 using only 9’s?**

**[2nd] Figure A has four sides, all congruent.**

**Figure B has four angles, all congruent.**

**🡪What are the differences between**

**A and B?**

**🡪Can A and B be the same figure?**

**[3rd] Using what you know so far,**

**can you construct a square?**

**FIRST THINK BEFORE YOU READ ON.**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **To construct a square, first begin with a \_\_\_\_\_\_ angle. To do this,**

 **construct a segment and its \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_.**

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 **Second, label the midpoint of** $\overbar{AB}$ **: call this point E. Then construct**

 **circle E so that EB = EF. This makes two sides of your square the**

** same \_\_\_\_\_\_\_\_, and they meet at a \_\_\_\_\_\_ angle.**

 **Third, construct two more arcs with the same radius as circle E:**

 **center the first arc at \_\_ and the second arc at \_\_\_. The point where**

 **these arcs intersect, \_\_\_, is the fourth \_\_\_\_\_\_ \_\_ \_\_\_\_ \_\_\_\_\_\_.**

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 **Finally, connect F to H and H to B.**

**[4th] How do you construct A rhombus is a quadrilateral in which all sides are \_\_\_\_\_\_\_\_\_.**

**a rhombus? 1st Construct a segment** $\overbar{AB}$**. 2nd Use your compass to measure**

 **from A to B; mark off that same \_\_\_\_\_\_\_\_ from A to a different point.**

 **Label this point C. 3rd Measure this same distance with your compass,**

 **but center the compass at \_\_: mark off this arc. 4th Measure this same**

 **distance, but center your compass at \_\_\_: mark off this arc so that it**

 **intersects the arc with center B. 5th Label where the two arcs inter-**

 **sect point D. Connect B to D and D to C.**

 **\*NOTE: We call this rhombus ABDC.**

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**[5th] On binder paper, you need to construct [a] a square, [b] a rhombus.**