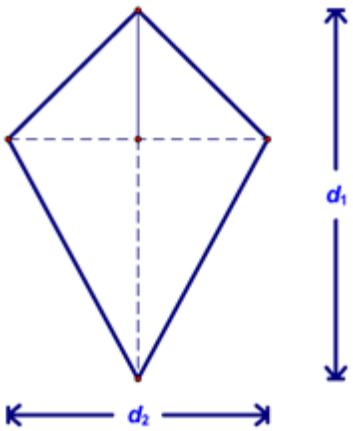
Areas of Kites and Related Figures - Lesson 11-4

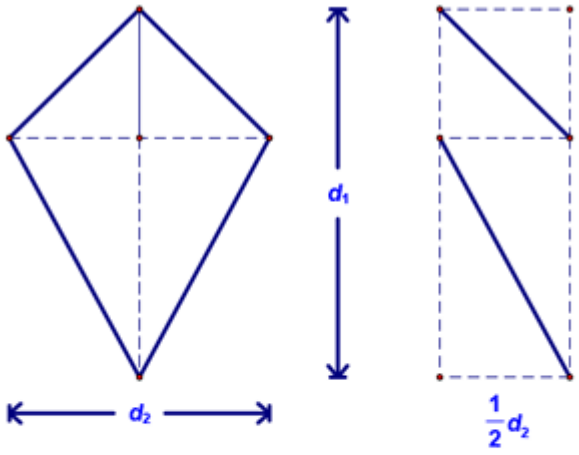
Here's the warmup!

Find the area of a rhombus if its diagonals are 30 and 40.

Today we're going to learn how to find the area of a kite. Let's start with this one:



Now, if you break the kite up into four triangles and rearrange them in a particular way, you get a rectangle. From there, you should be able to see how we get to a formula for the area.



Theorem 103: The area of a kite is given by the formula $A=\frac{1}{2}d_1d_2$, where A is the area and d_1 and d_2 are the lengths of the two diagonals (*Kite Area Formula*).

Remember that squares and rhombuses are both kites!!