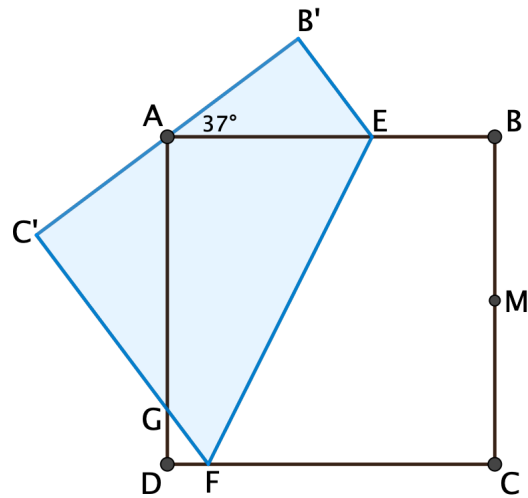


**Do Now:**

When the midpoint  $M$  of one side of a square paper is folded over to a vertex as shown on the right, a  $37^\circ$  angle is created. Find the measures of all other angles in the diagram.

**Follow-up questions:**

1. Which angles are harder to find?
2. What theorems in geometry are used in finding the angle measures?
3. What geometric concepts, vocabularies, and definitions are associated with this problem?
4. How can you modify the problem for students in the lower grades?
5. How can you modify the problem to make it more challenging?
6. How do you construct the diagram? What math concepts are applied in the construction of the diagram?