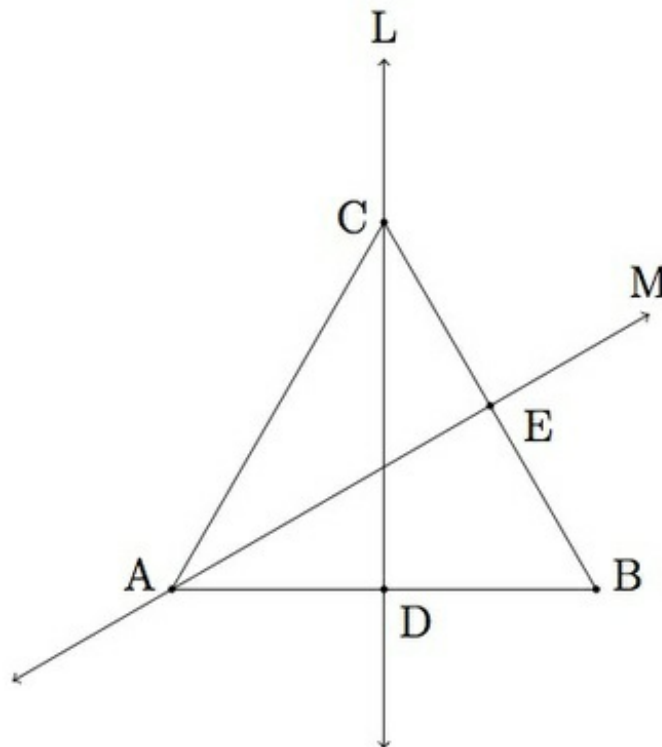


G.CO Reflections and Equilateral Triangles II

Task

Suppose ABC is an equilateral triangle. Let D be the midpoint of side \overline{AB} and E the midpoint of side \overline{BC} as pictured below:



The line through C and D is denoted L and the line through E and A is denoted M . Let r_L denote the reflection of the plane about the line L and r_M reflection of the plane about the line M .

- a. Where do the reflections r_L and r_M map the vertices A , B , and C of triangle ABC ? Explain.
- b. Where do the vertices A , B , and C end up if the plane is first reflected about line M and then about L ?
- c. Where do the vertices A , B , and C end up if the plane is first reflected about line L and then about M ? Is the answer the same as (b) or different?



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