

Make a Design

This packet contains worksheets on which students can create symmetric designs. Each page includes some mirror lines which should be lines of reflection in the final design. The pages featuring a grid are probably easier to work with. The ones labeled **Challenge!** are definitely harder, as they do not show all the mirror lines.

It might be possible to use these sheets to create designs with rotational symmetry and no mirrors, but that would be a more advanced endeavor, probably requiring more guidance from the teacher.

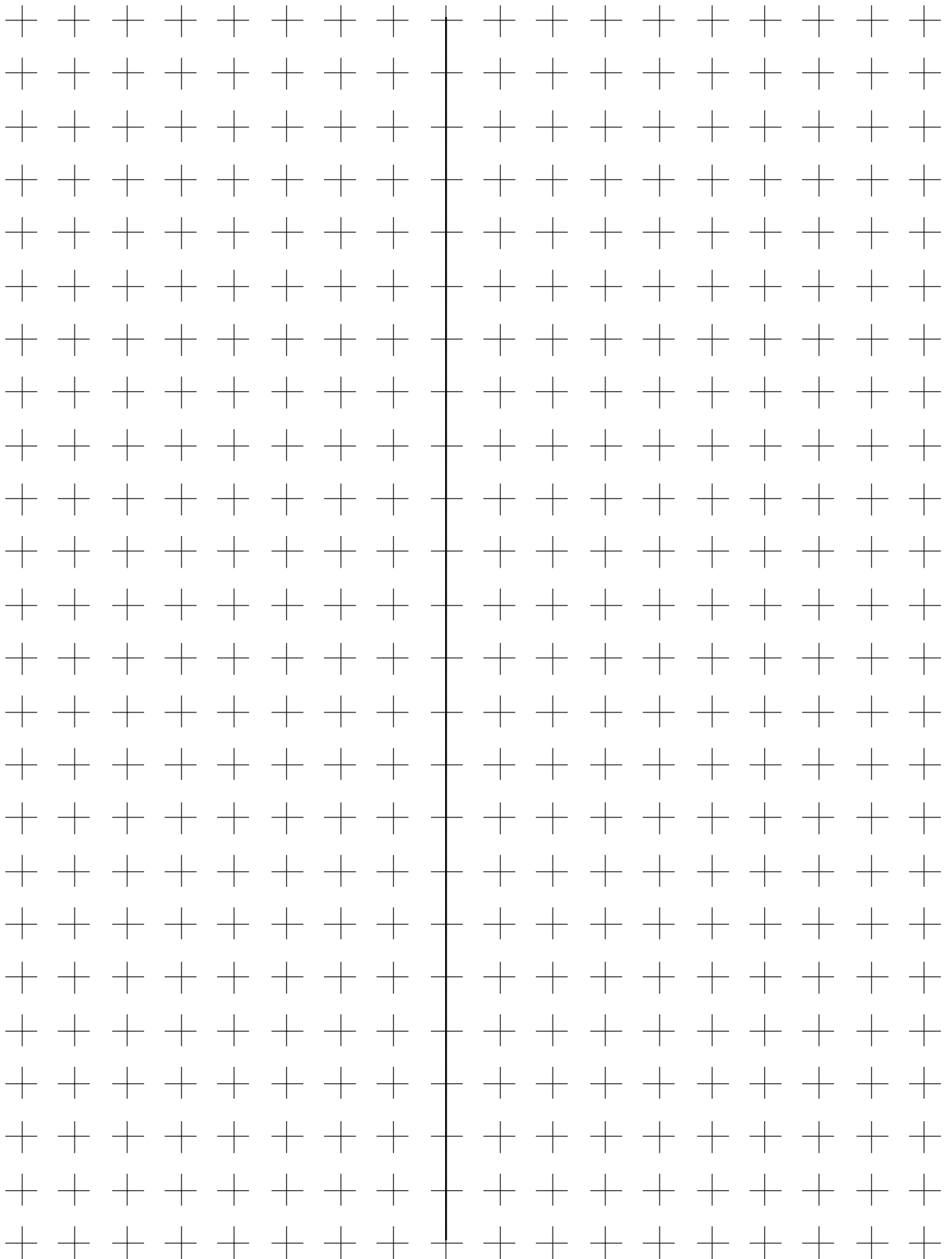
I created this packet to accompany the lesson plans in the symmetry unit which can be found at www.MathEducation.page/symmetry. However the activities in here can be carried out independently of the unit. If you don't want to read the lesson plans cover to cover, you can start by looking at the handouts in this packet, and use this list to find the relevant lessons when needed — those include lists of materials and suggested sequencing and organization.

Also note that older students can create symmetric designs, using a variety of media, without the support offered by the pages in this packet. Some examples can be seen in these photos of student work:

www.mathed.page/space/art.html and
www.MathEducation.page/symmetry/friezes.html.

	Packet	Lessons
Make a Design	pp. 1-16	pp. 16-17
Make a Frieze	p. 17	pp. 21-22
Make a Wallpaper	pp. 18-31	pp. 26-27

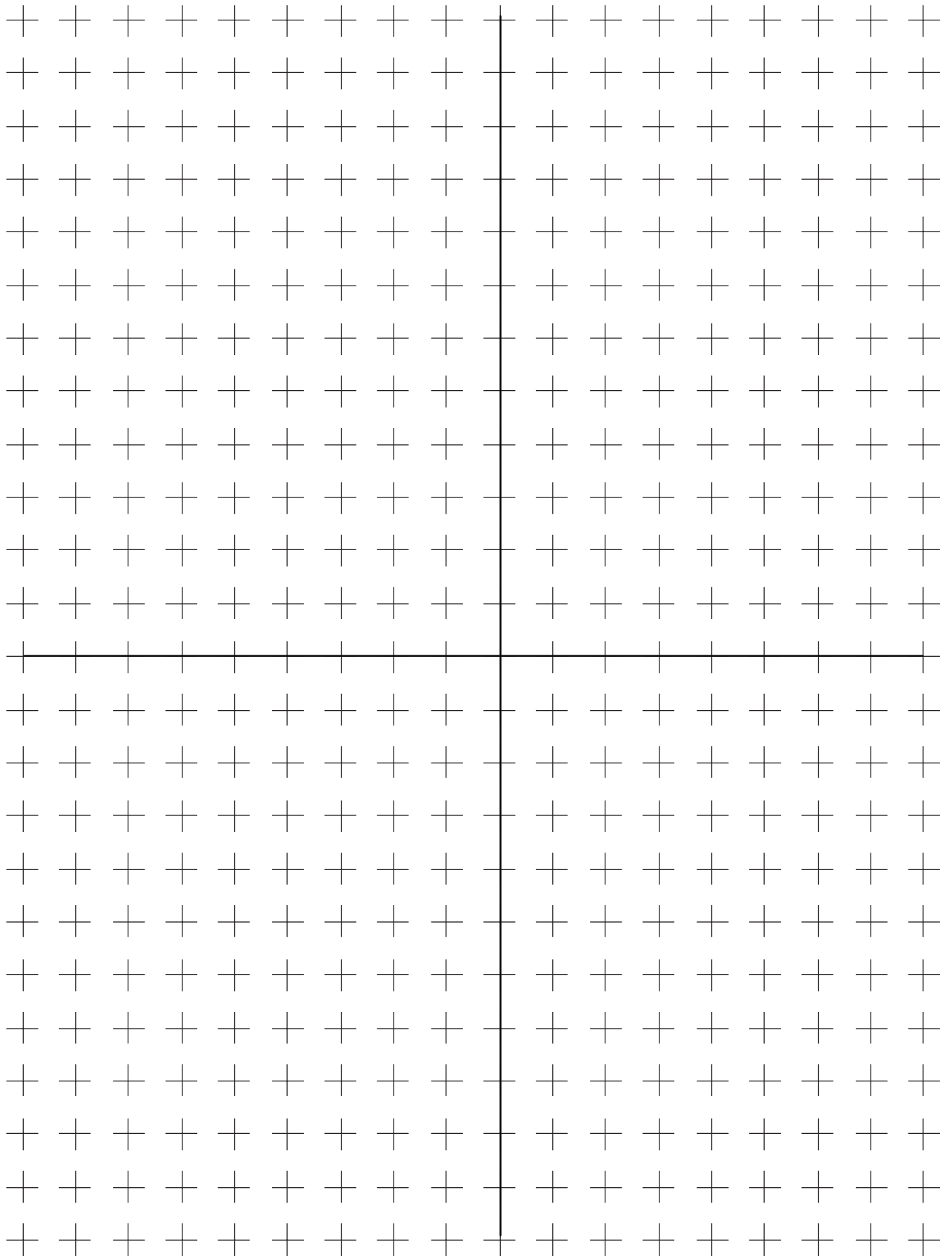
Make a Design



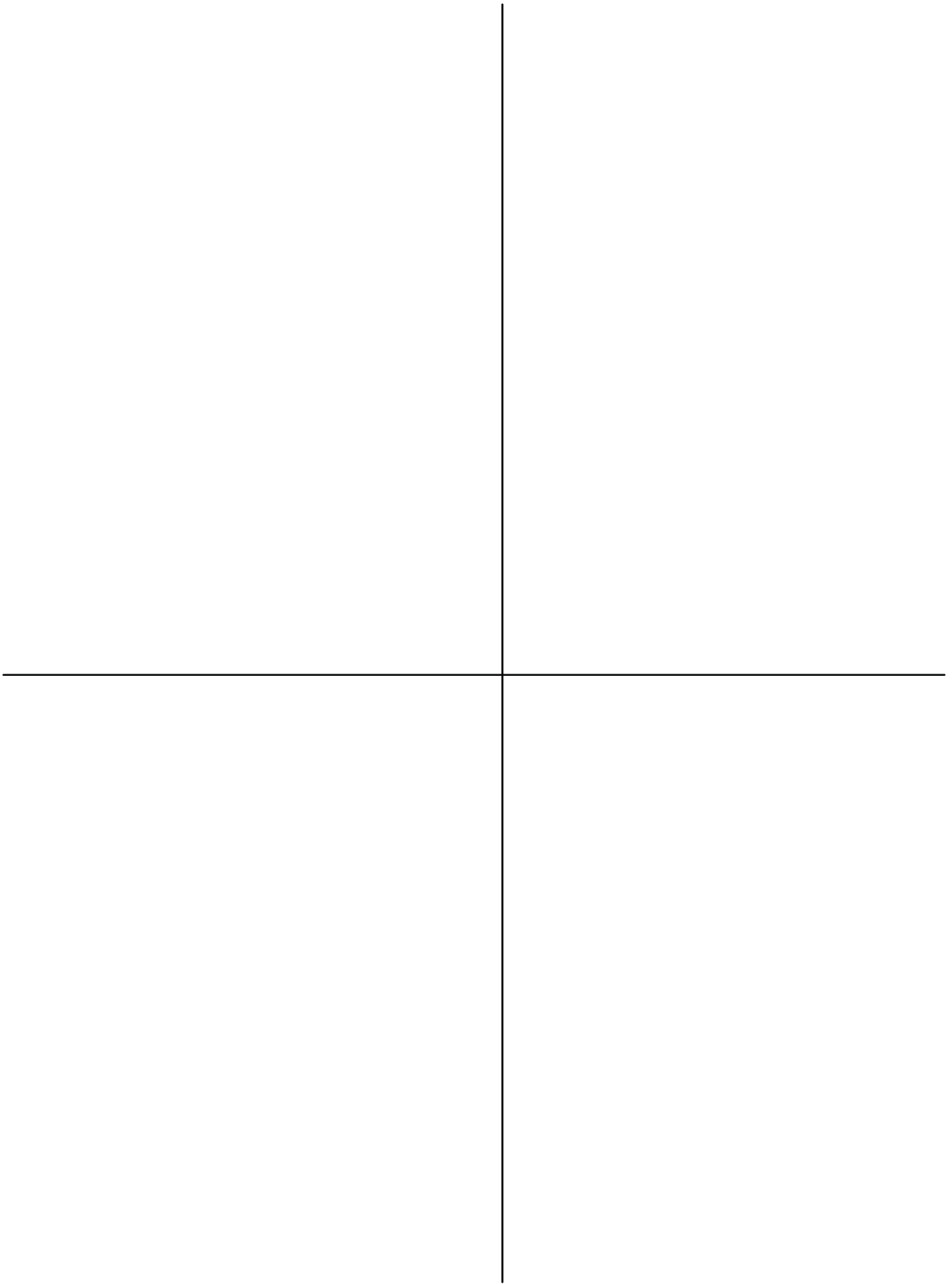
Make a Design



Make a Design

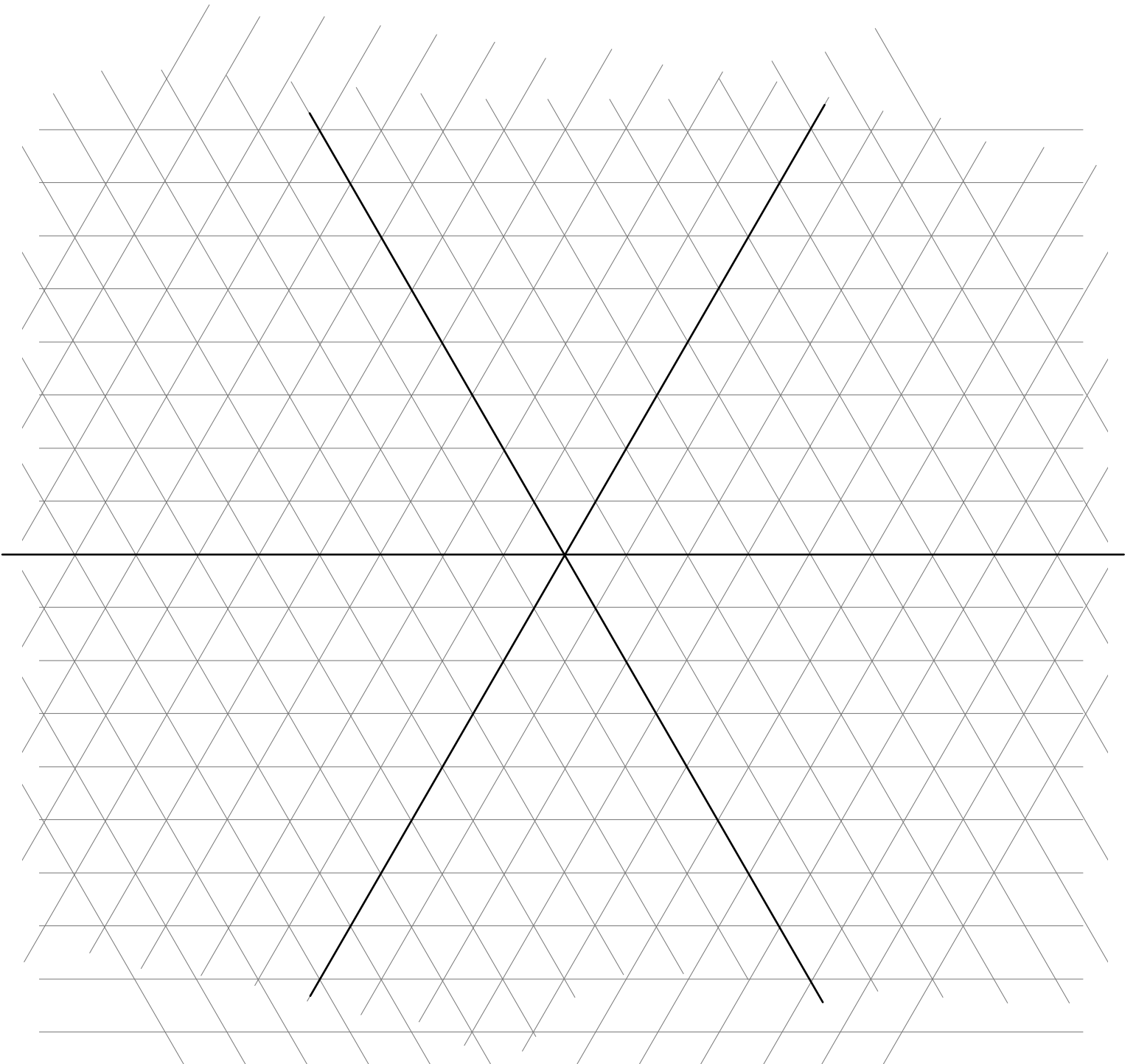


Make a Design



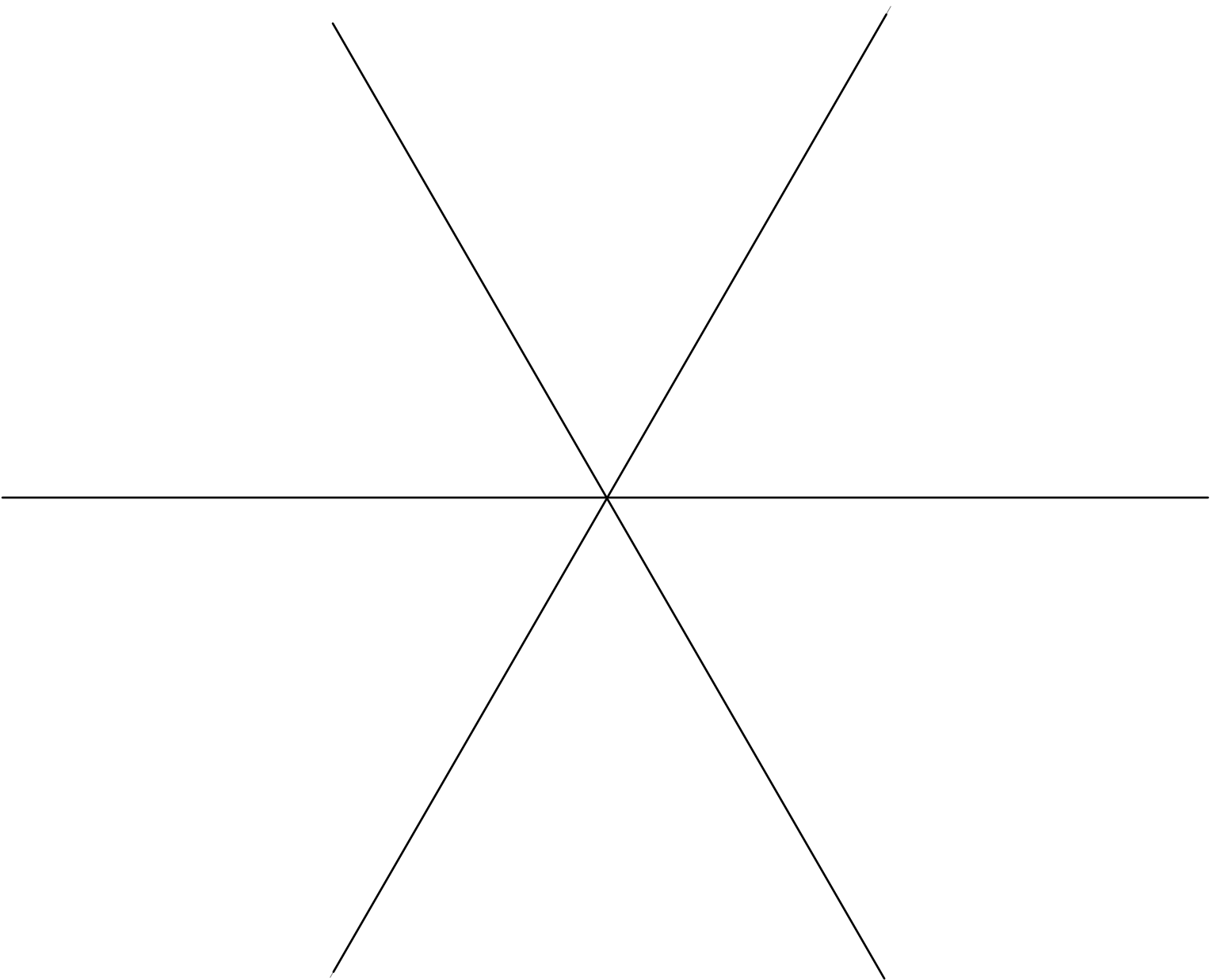
Make a Design

Symmetry
Henri Picciotto

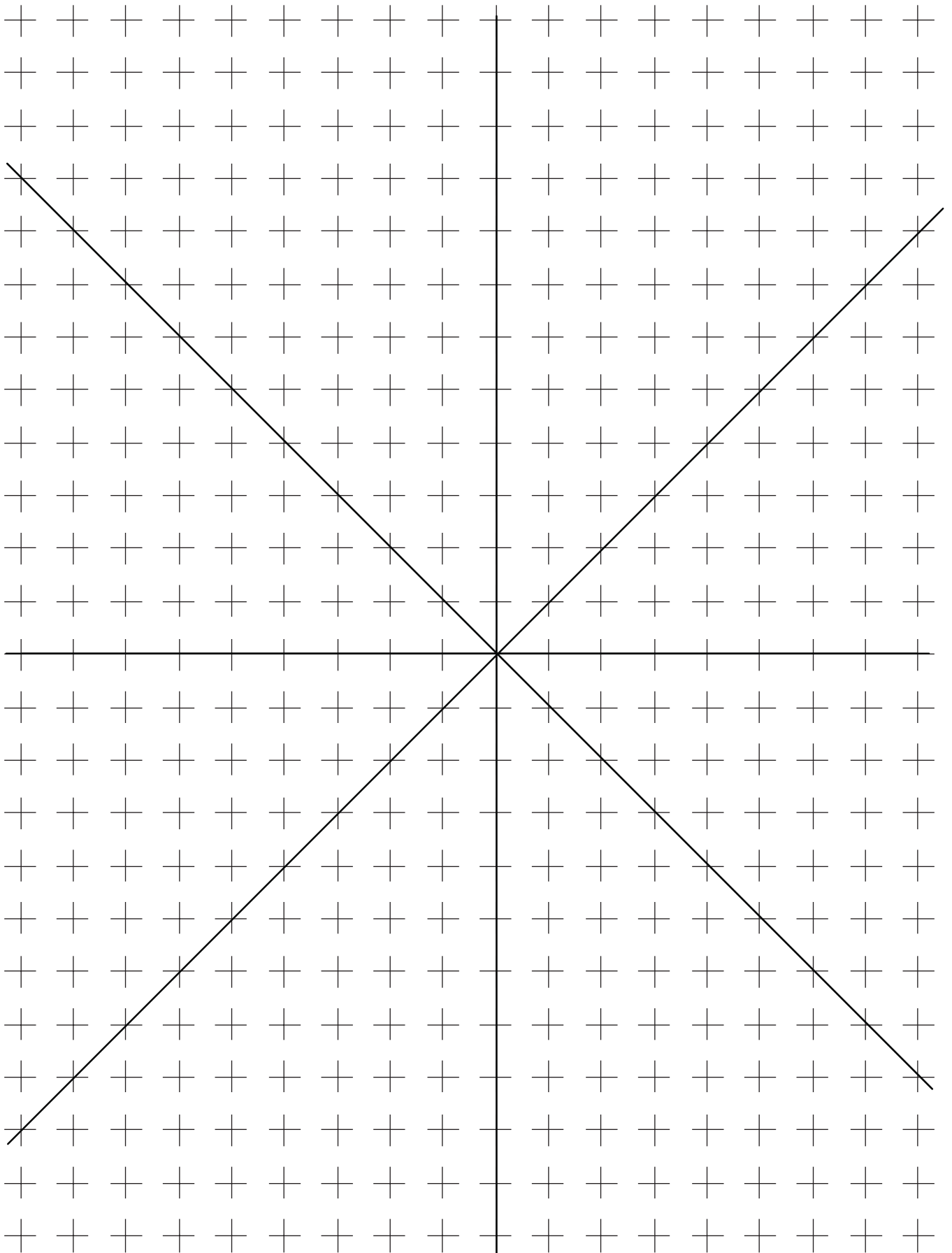


Make a Design

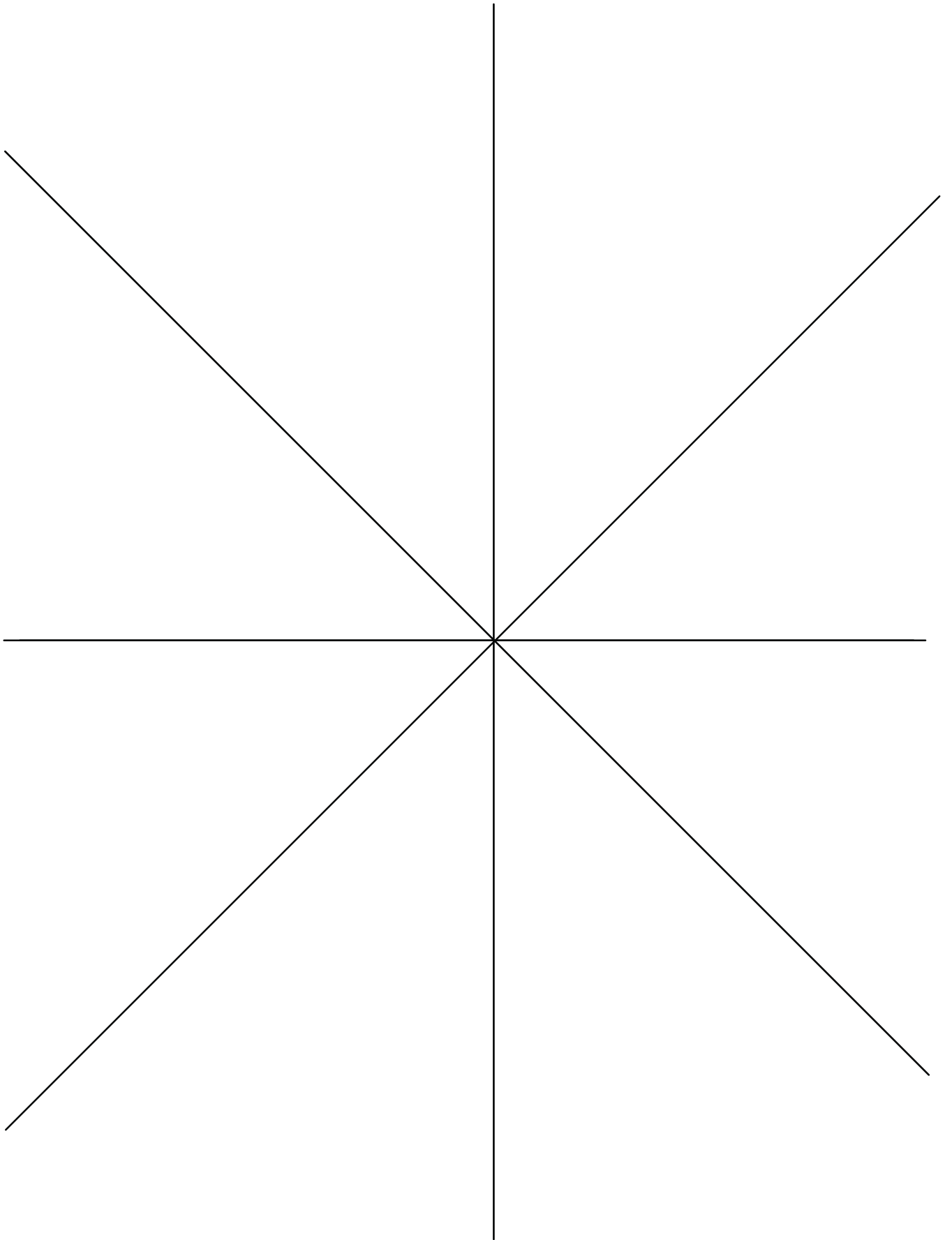
Symmetry
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Make a Design



Make a Design

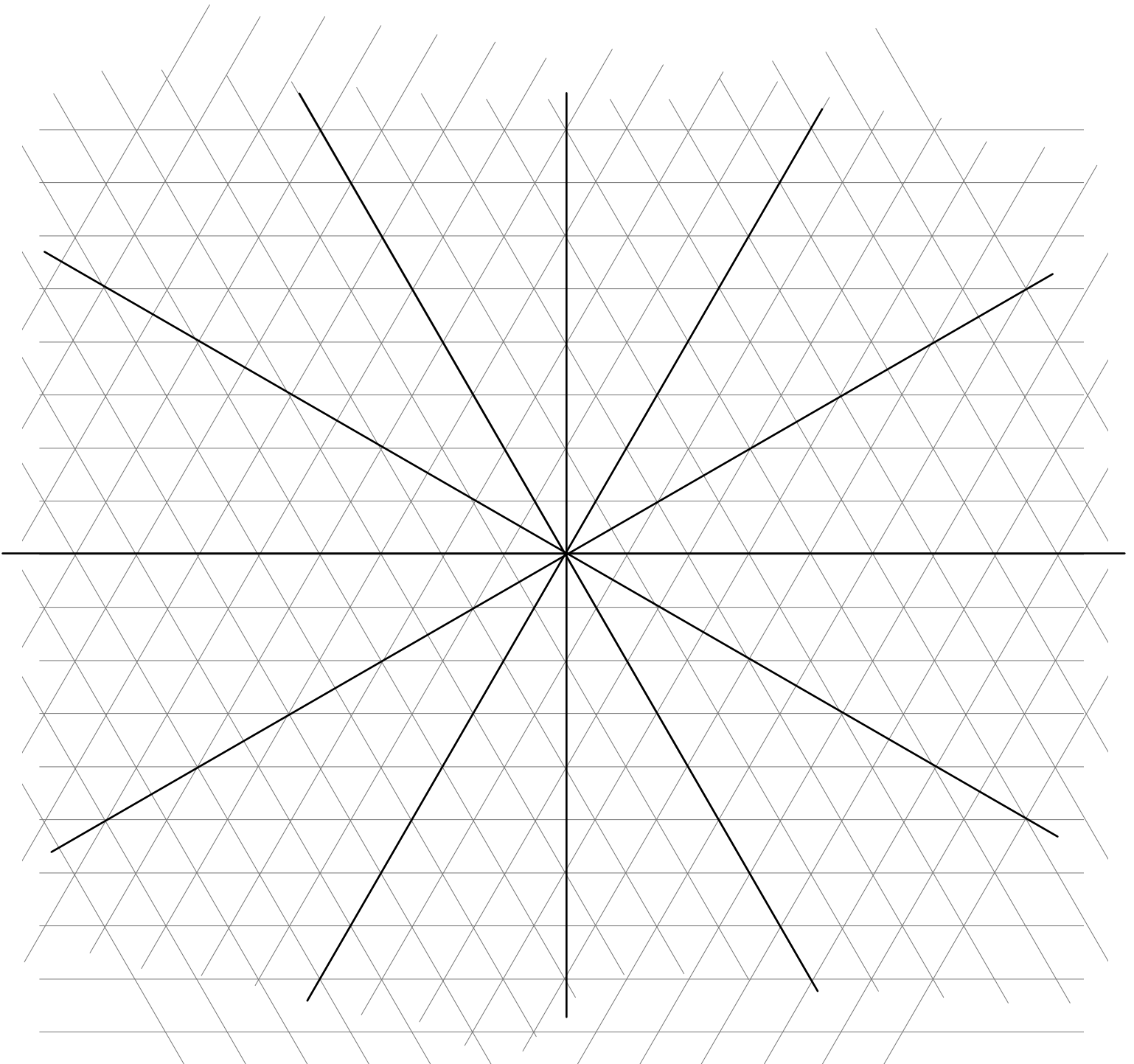


Symmetry

Henri Picciotto

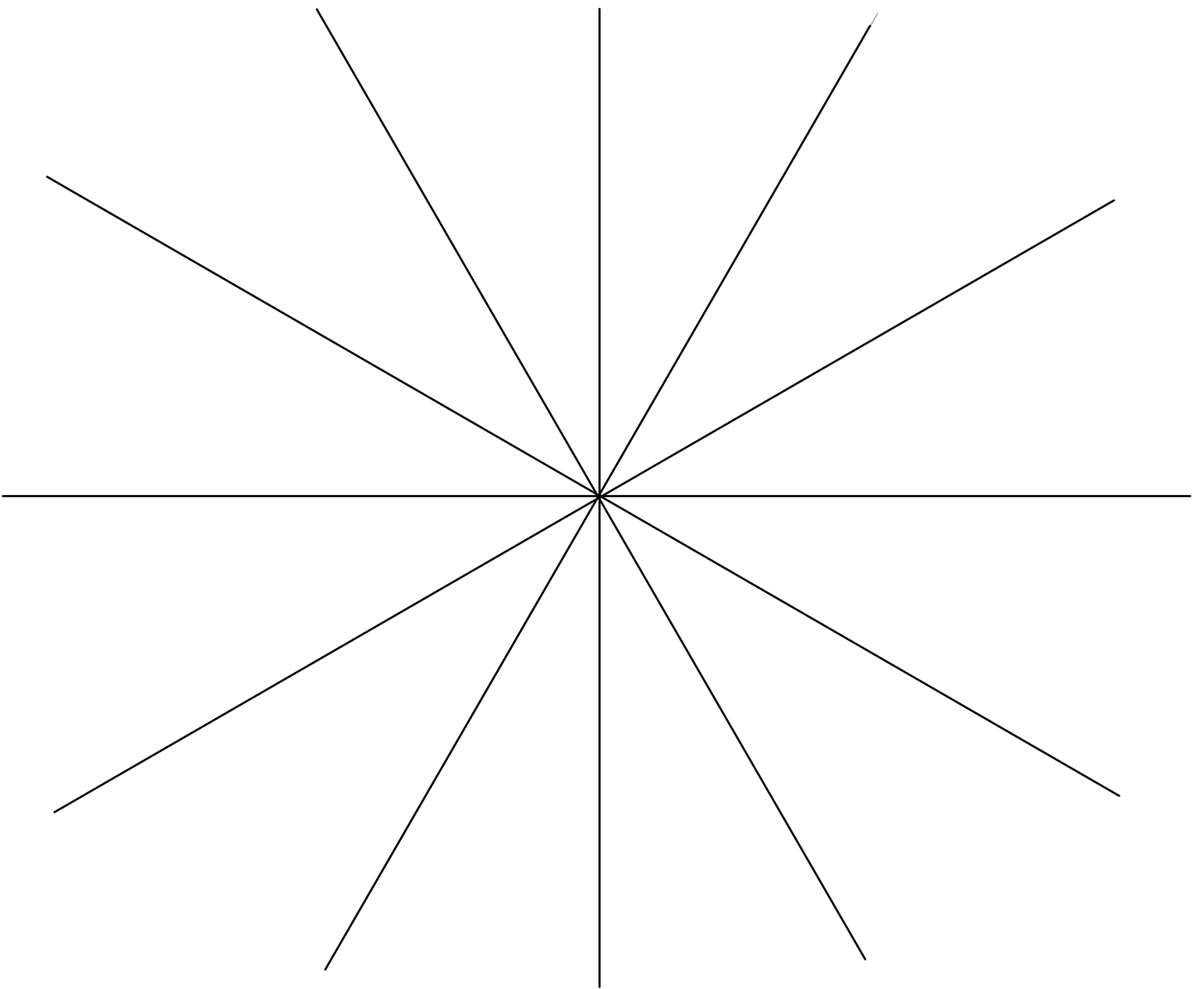
Make a Design

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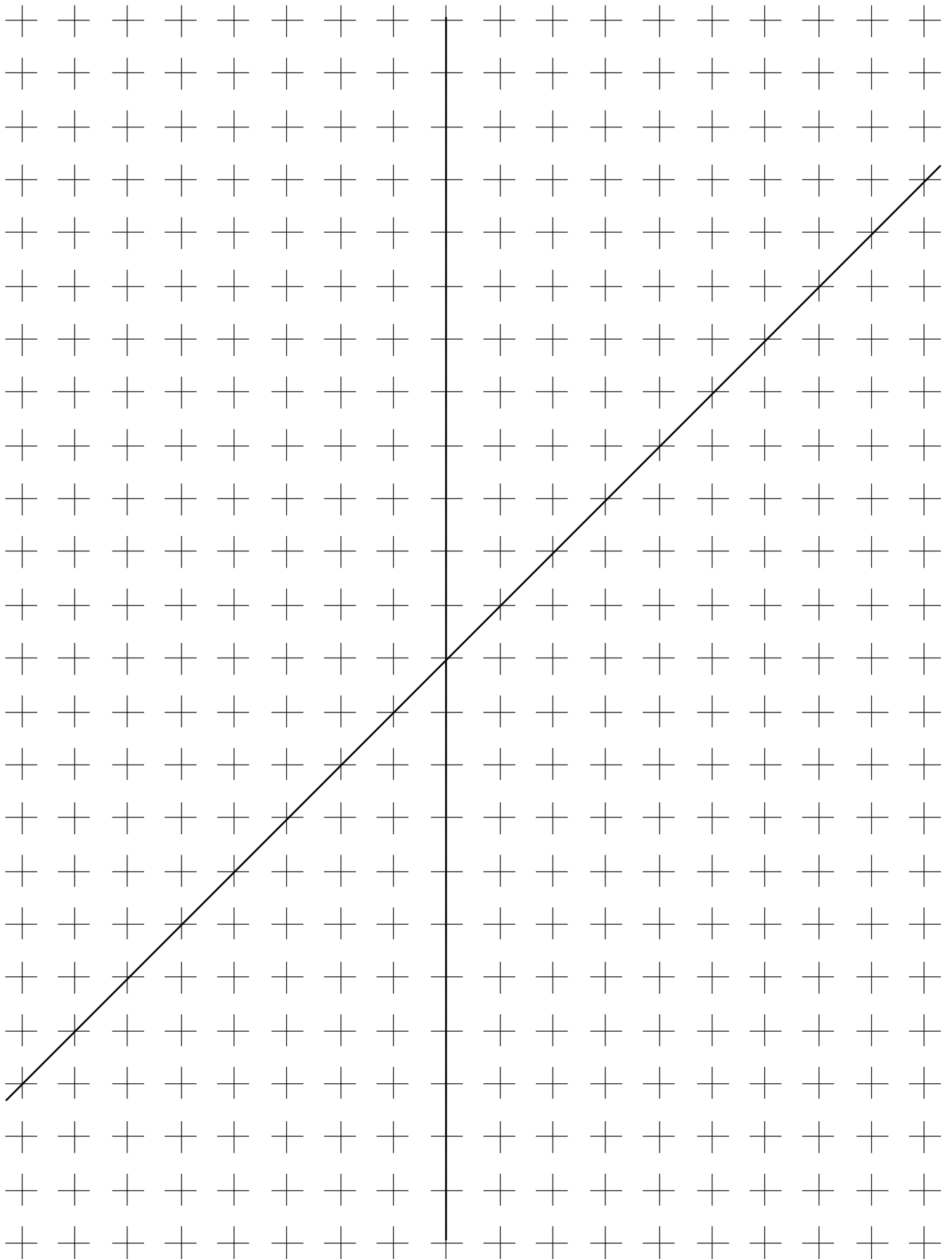


Make a Design

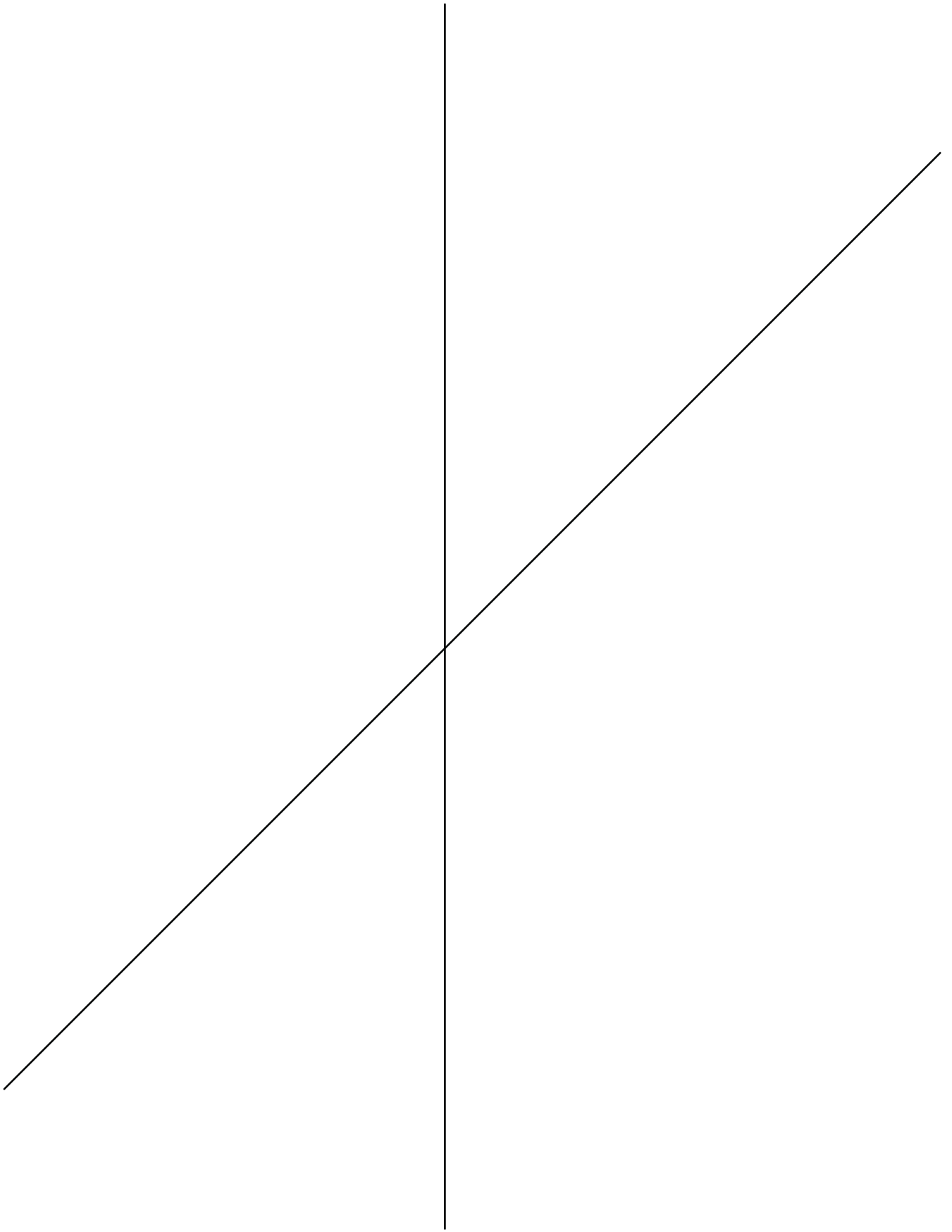
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Make a Design



Make a Design



Symmetry

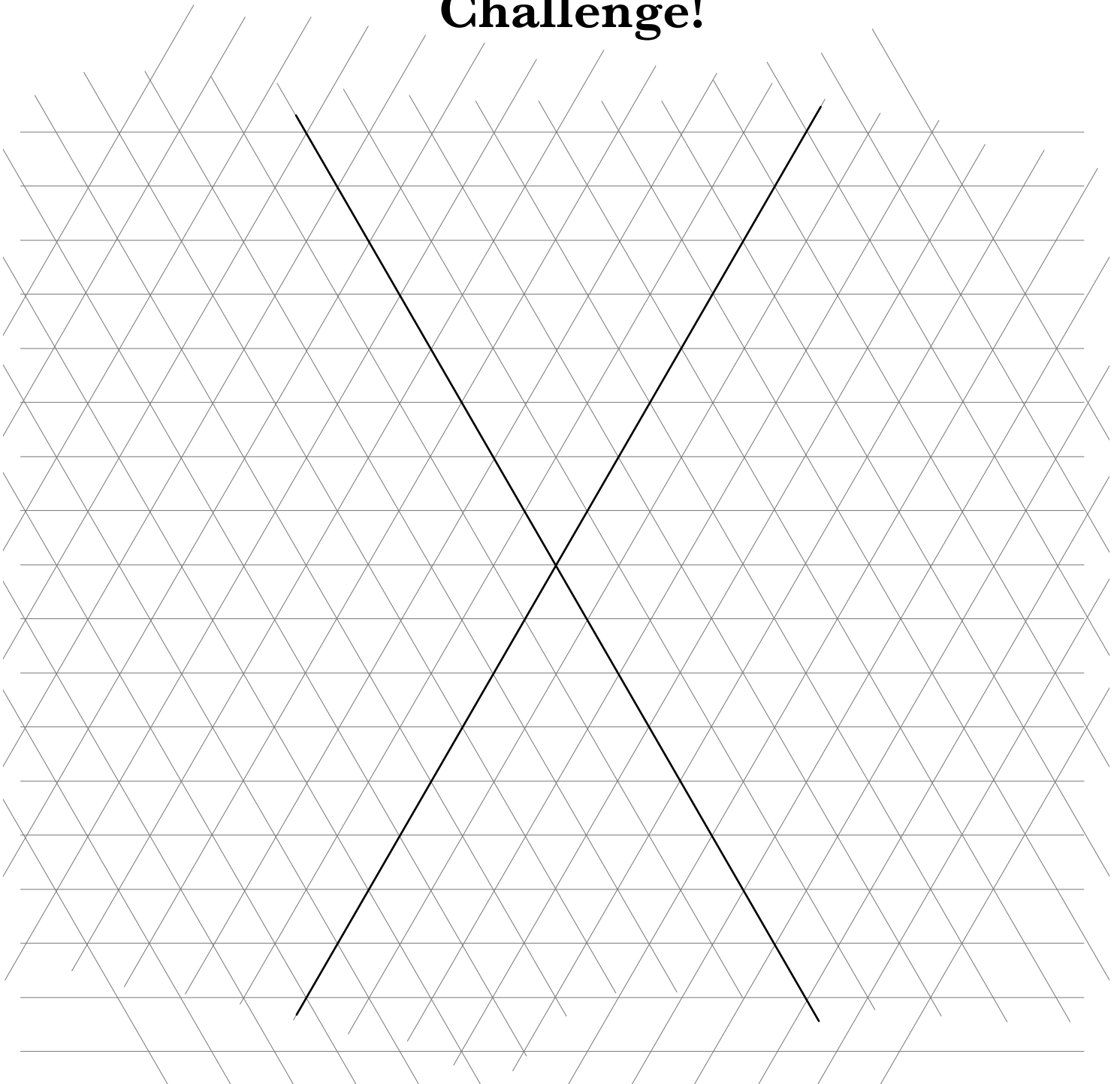
Challenge!

Henri Picciotto

Make a Design

Symmetry
Henri Picciotto

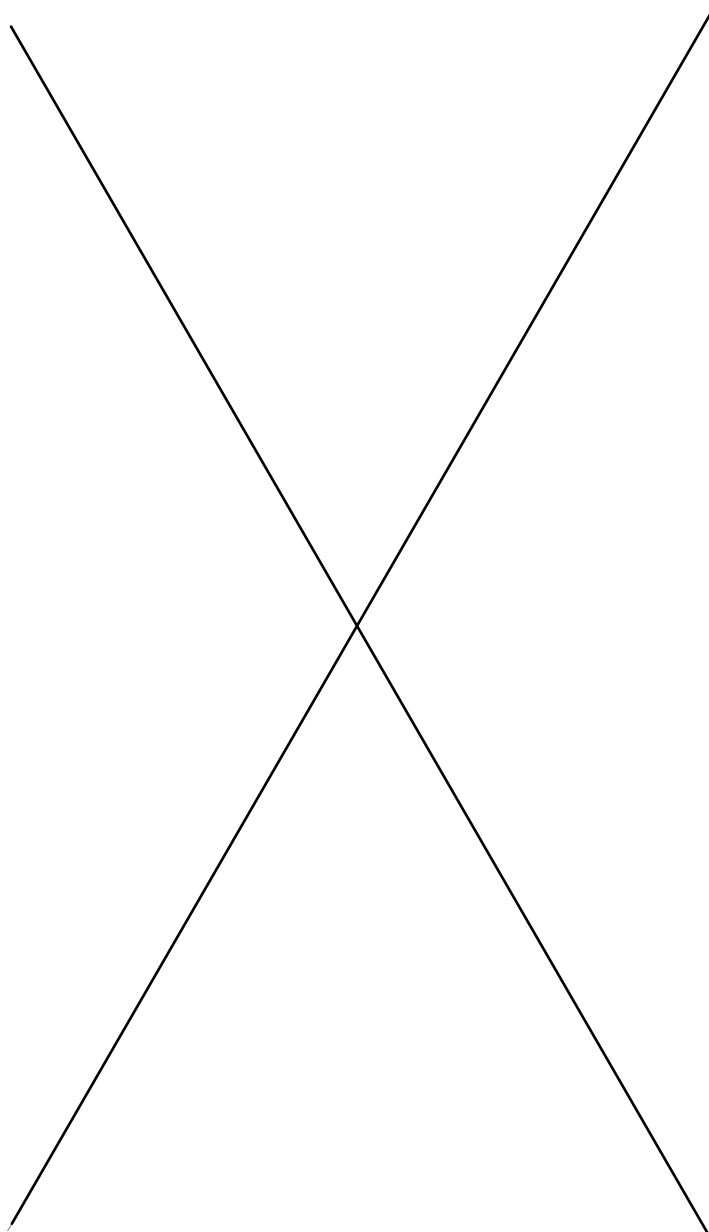
Challenge!



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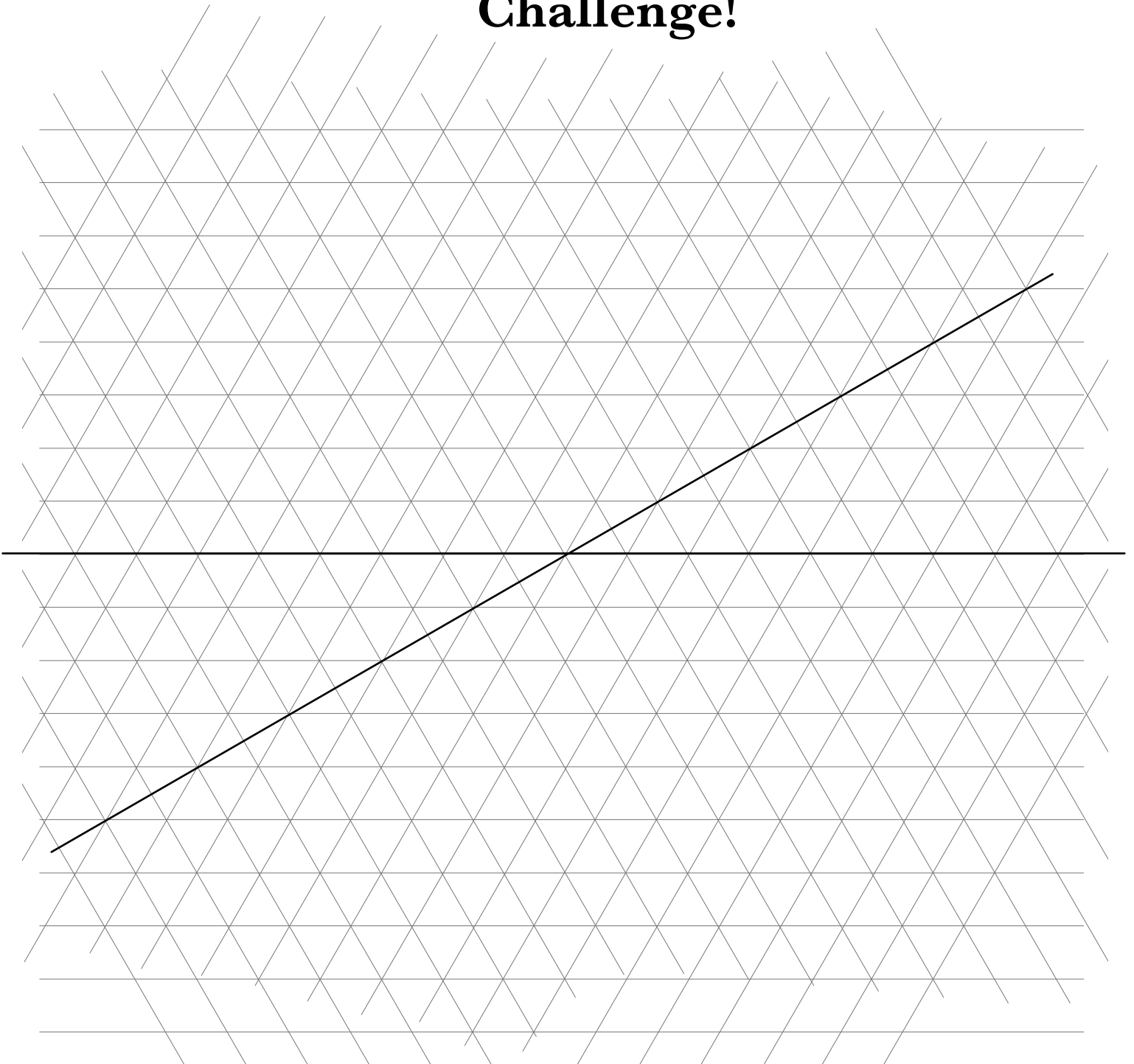
Challenge!



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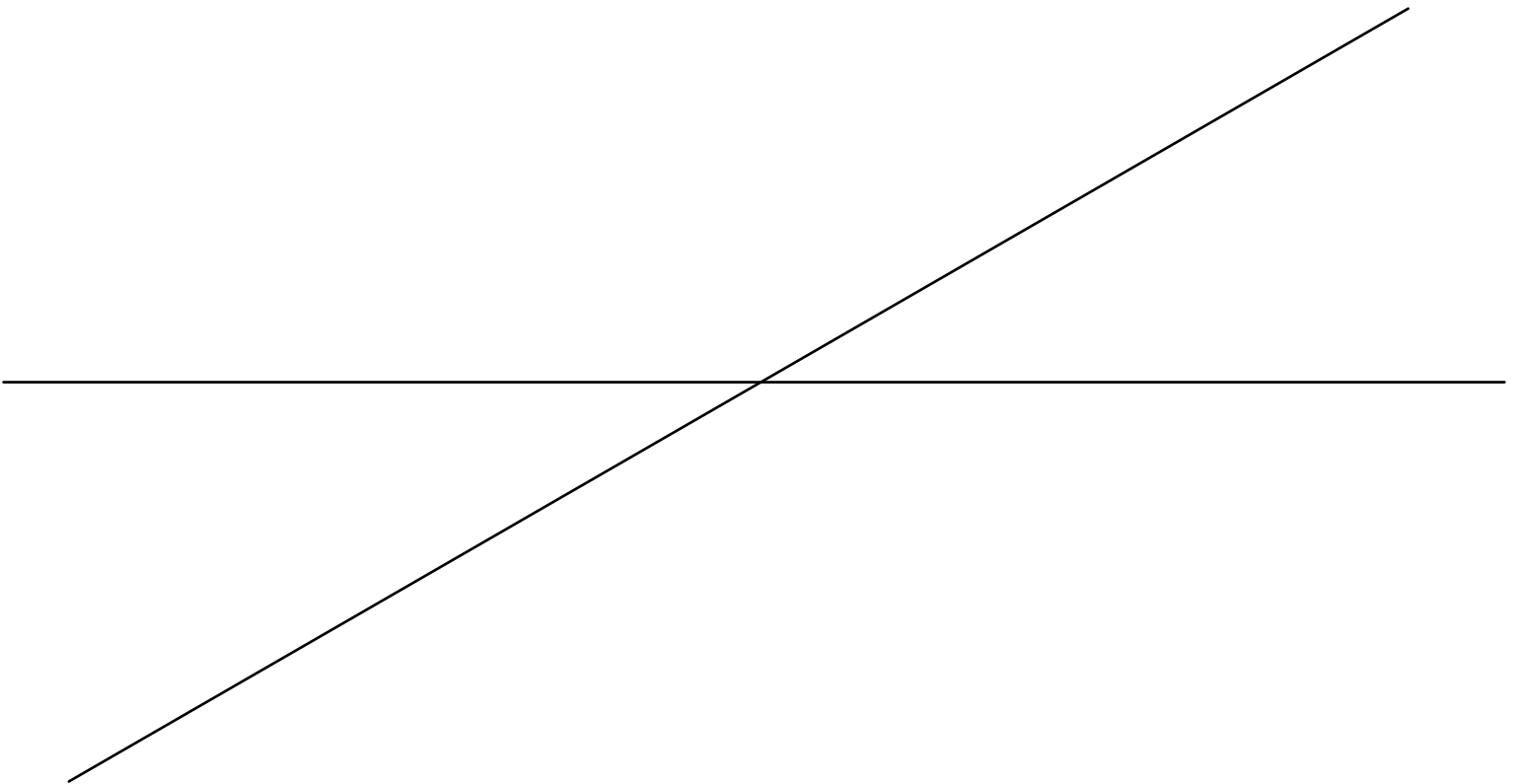
Challenge!



Make a Design

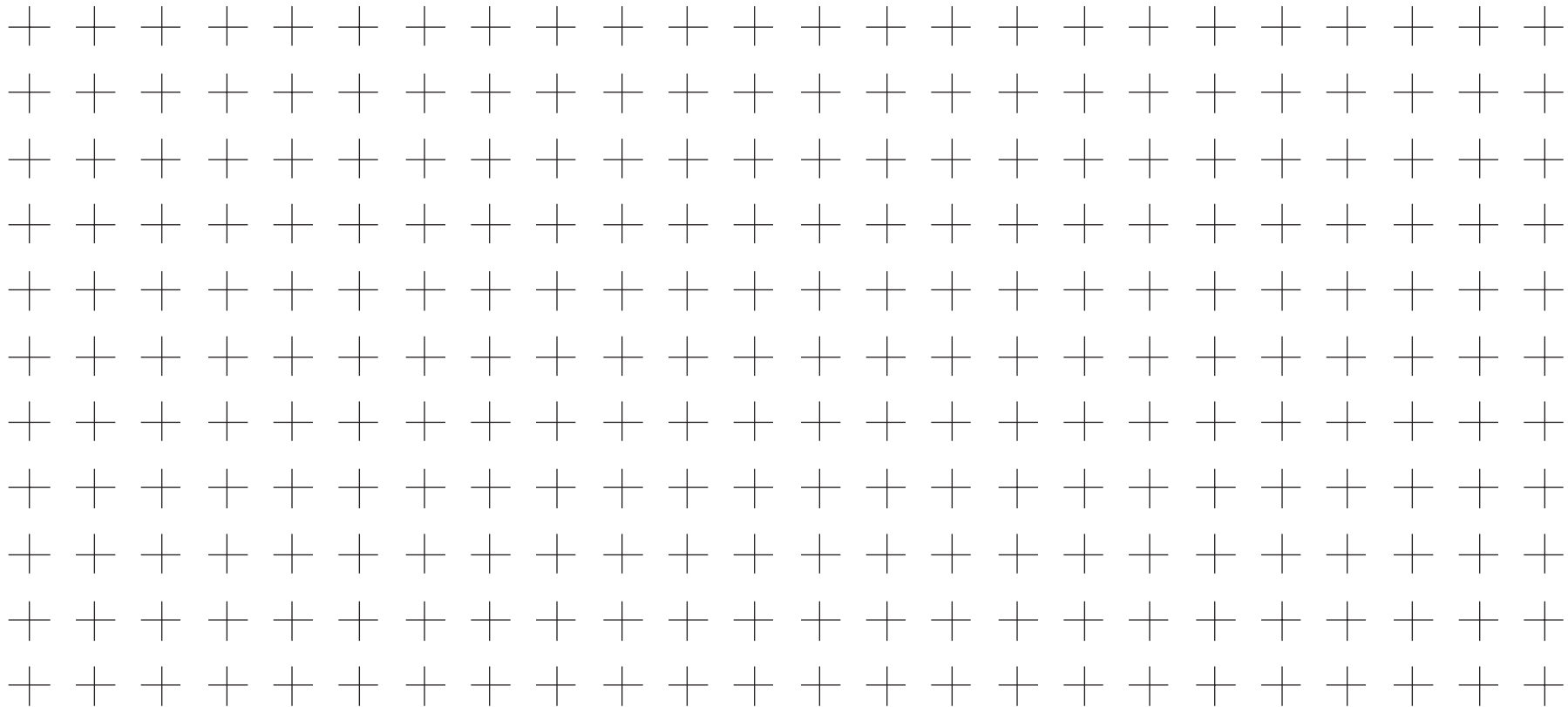
Symmetry
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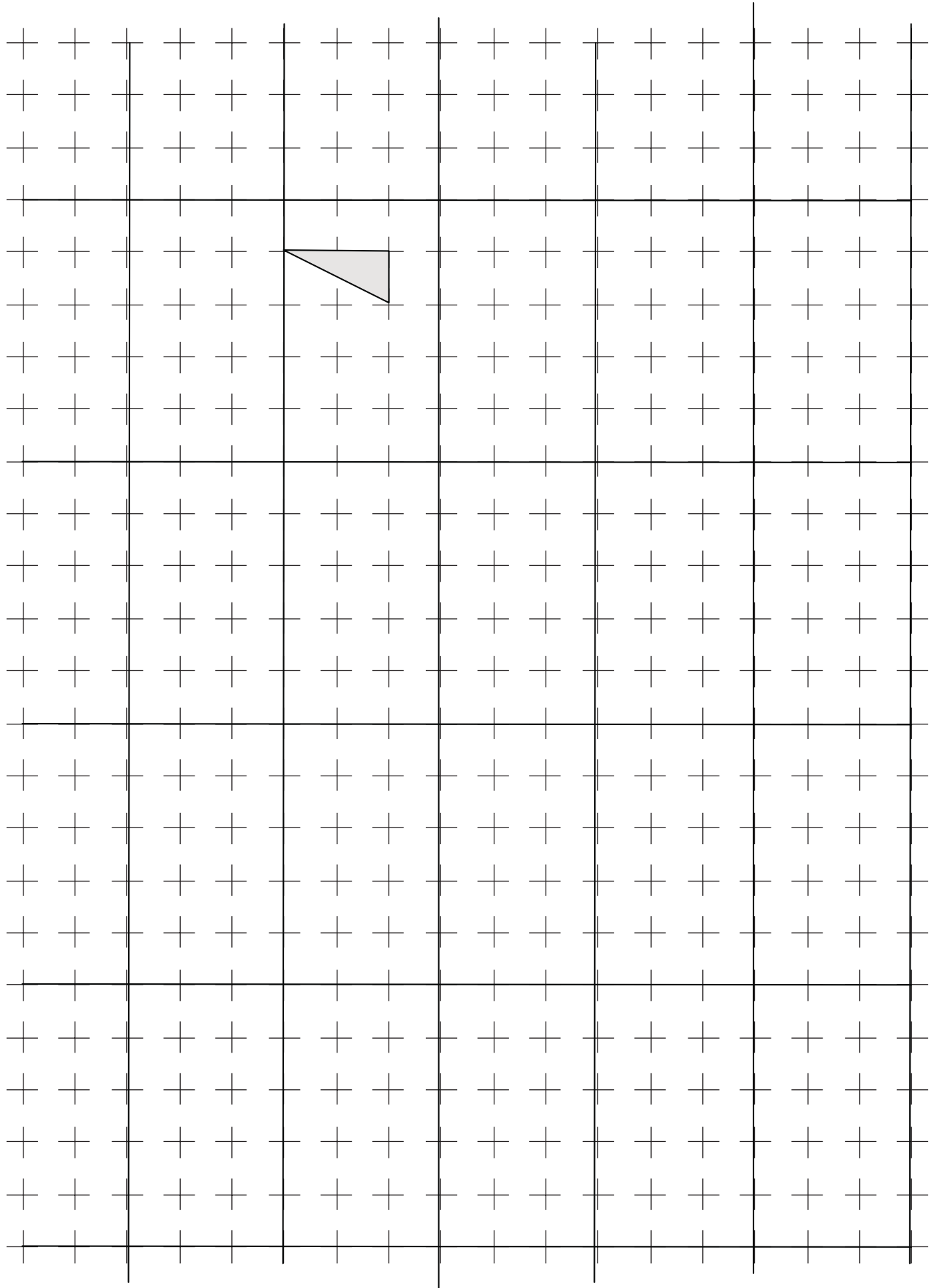
Challenge!



Make a Frieze

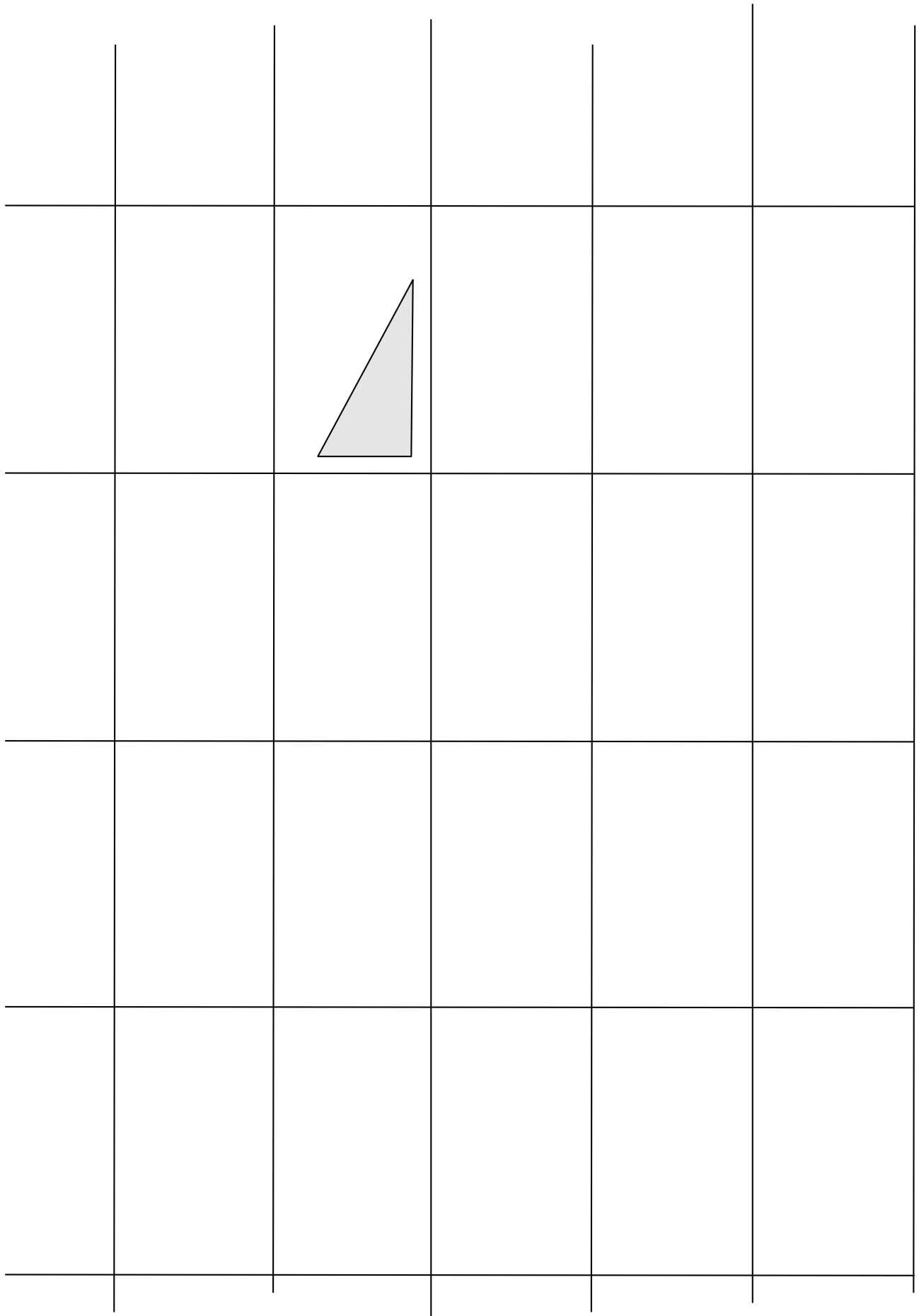
Symmetry





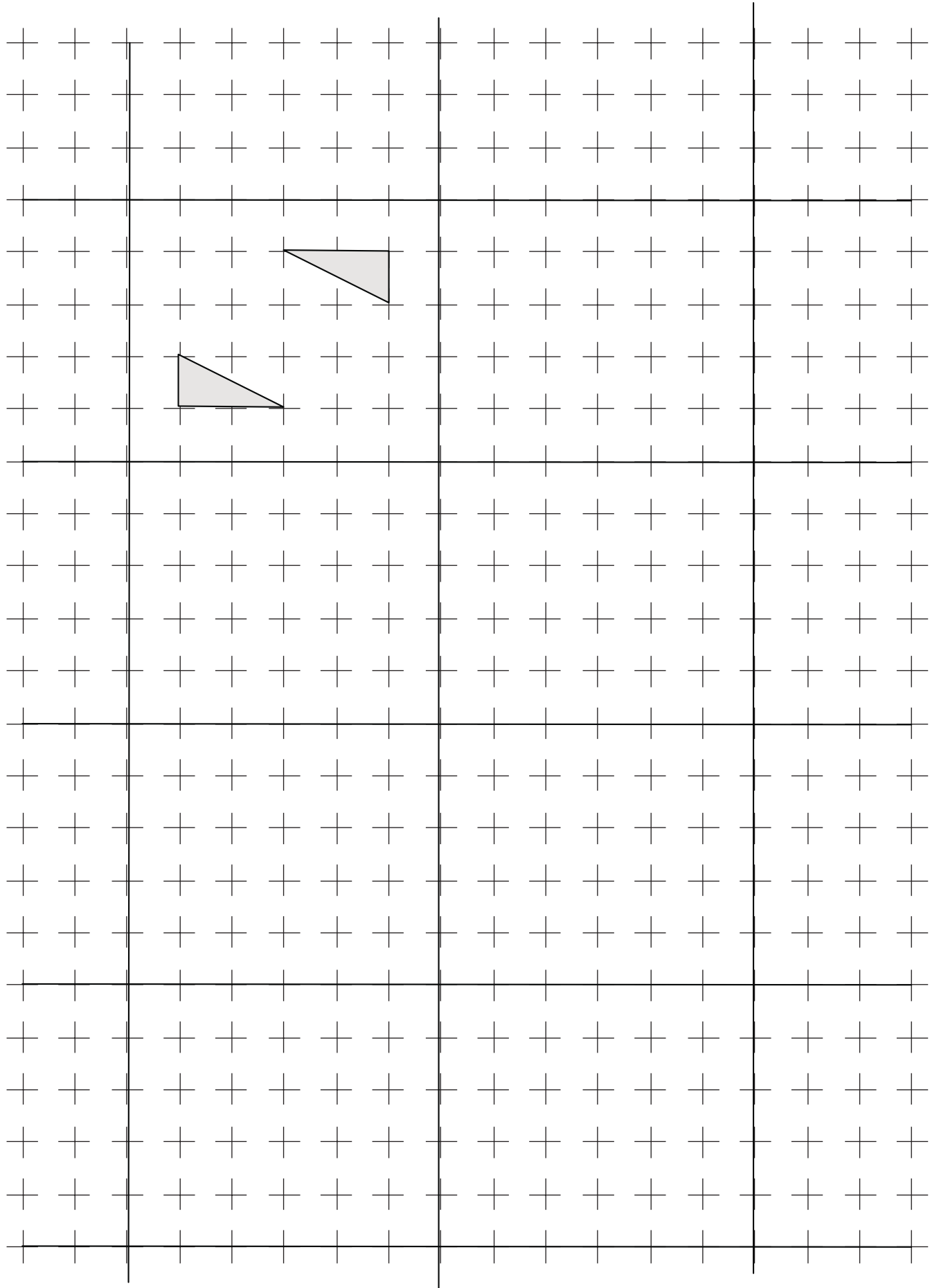
Make a Wallpaper

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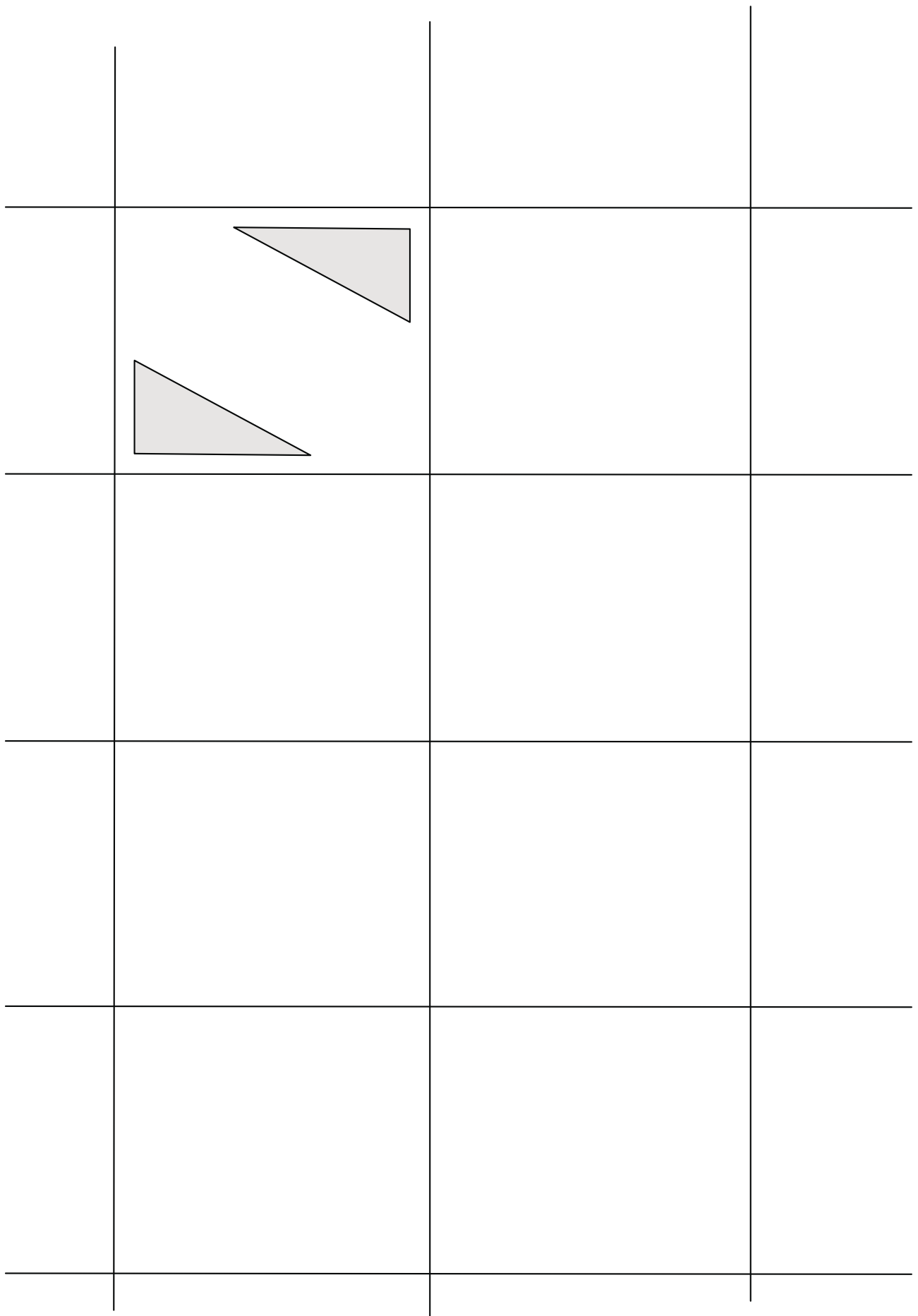
Make a Wallpaper

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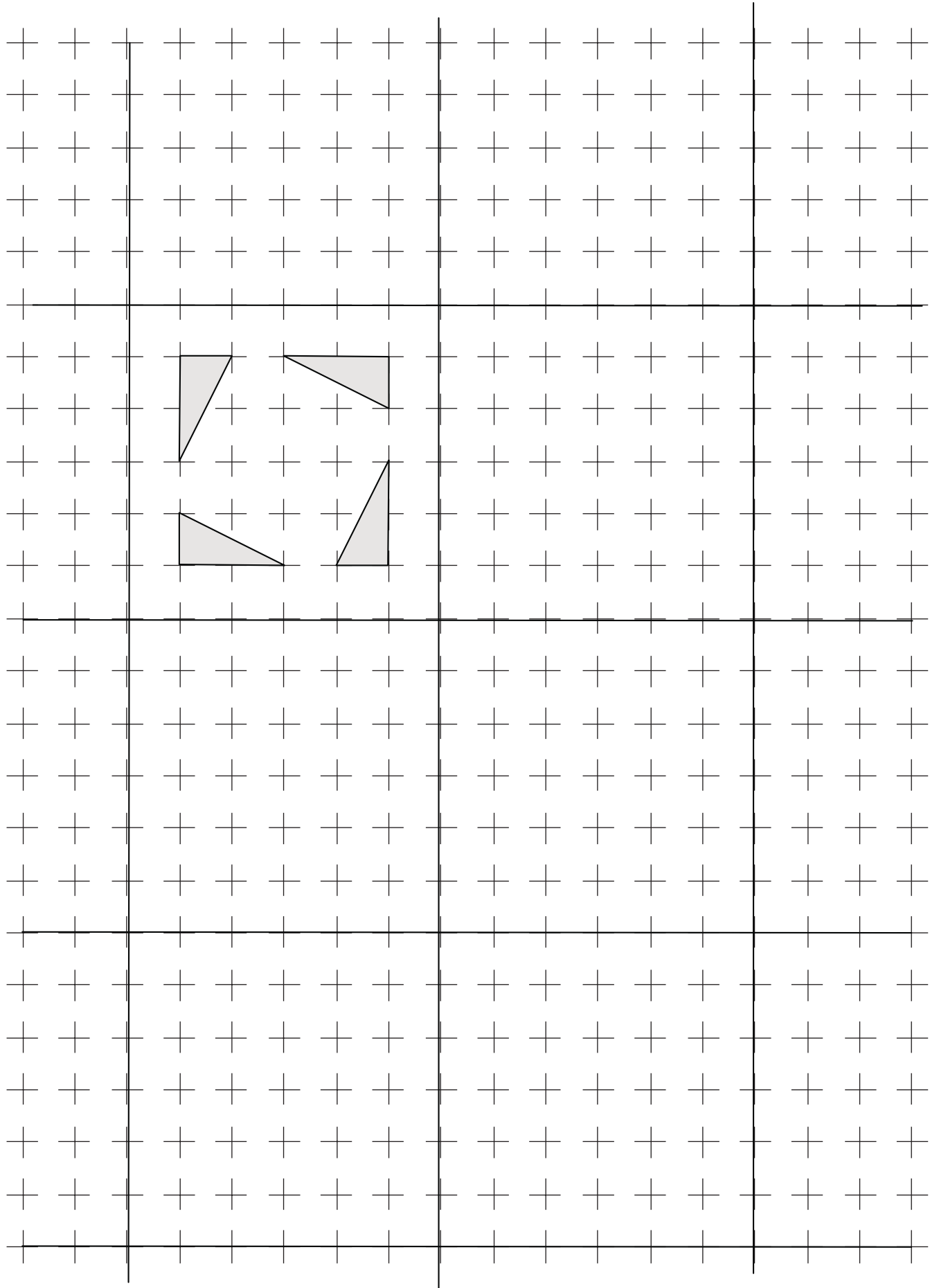
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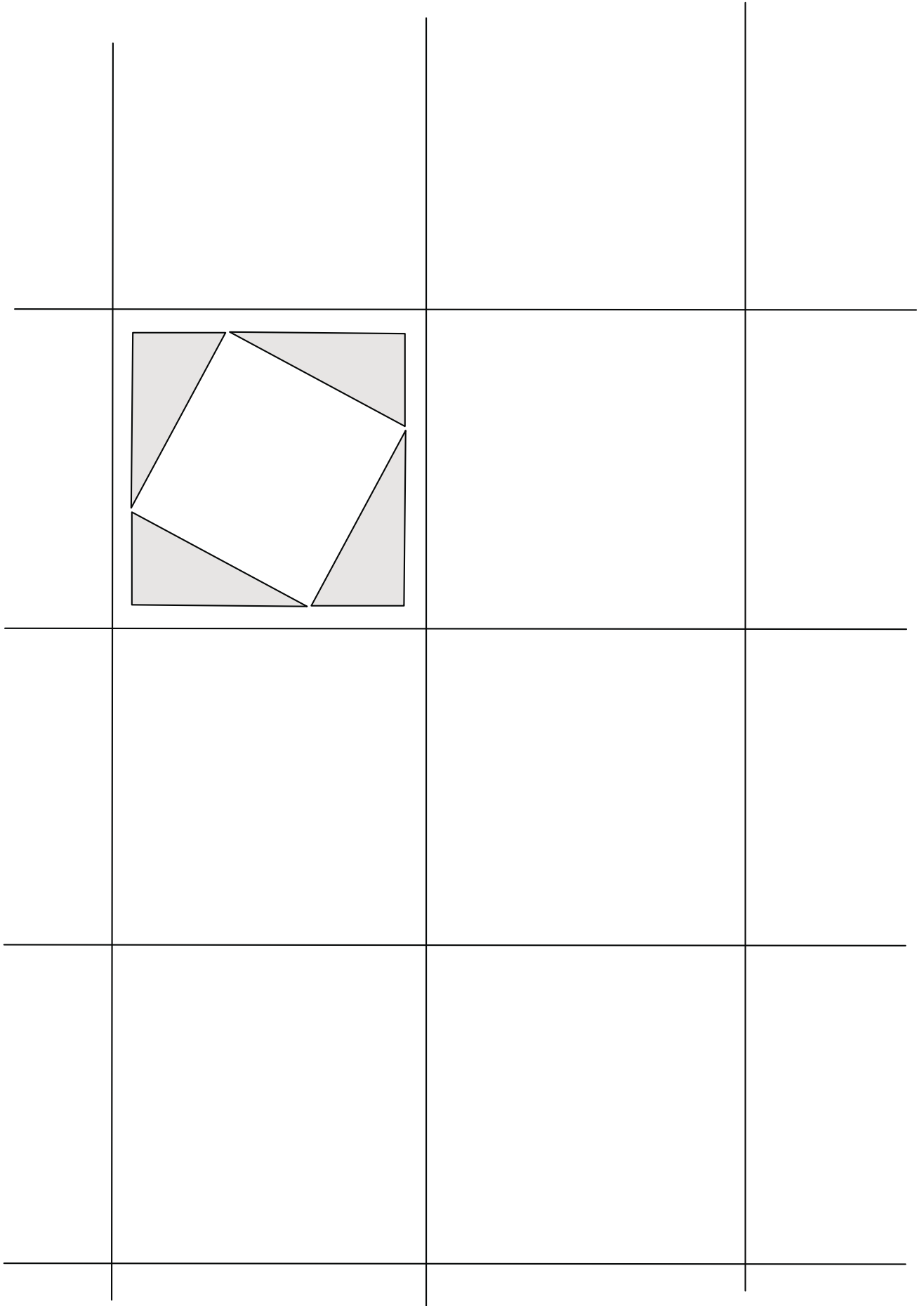
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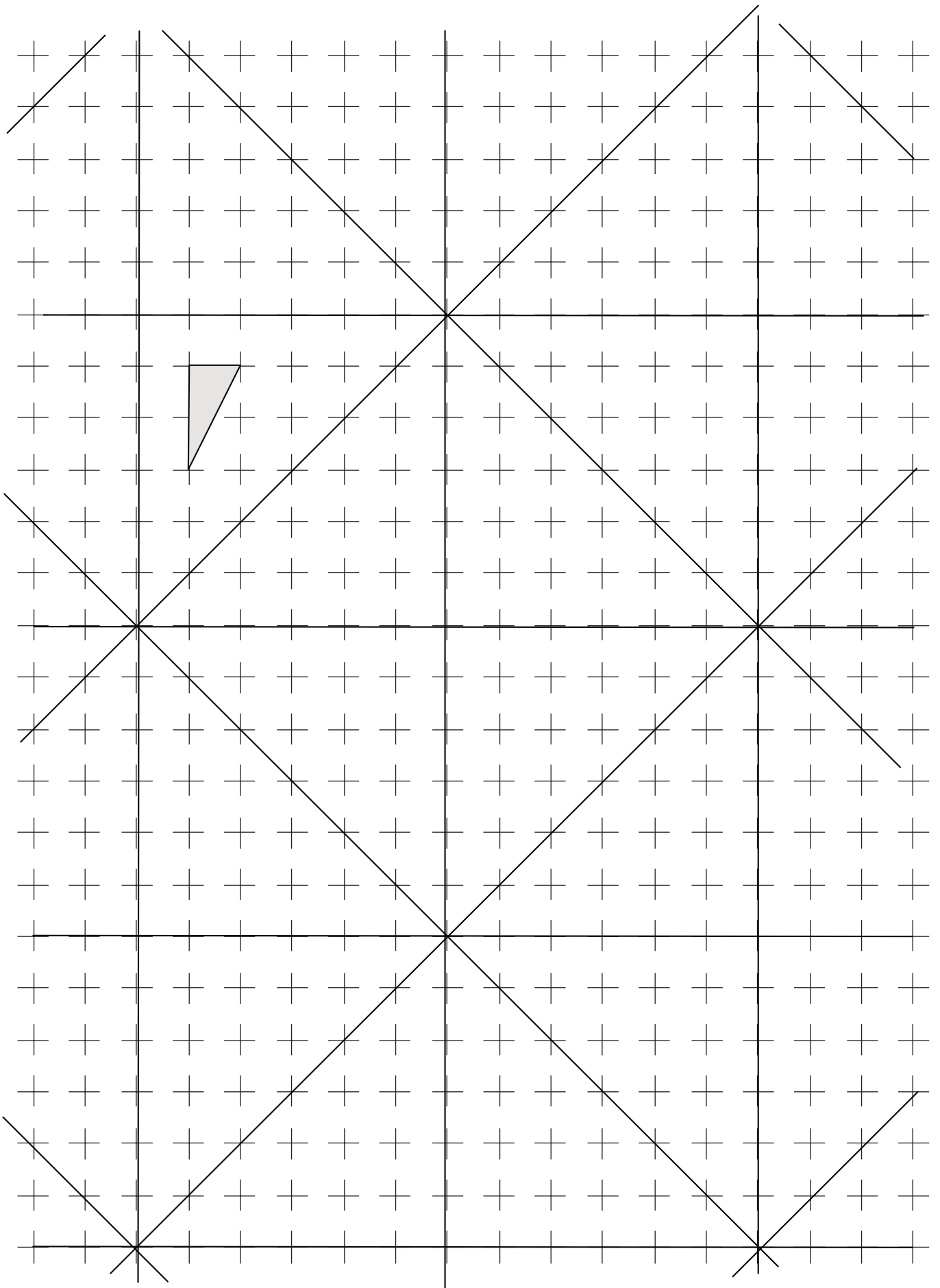
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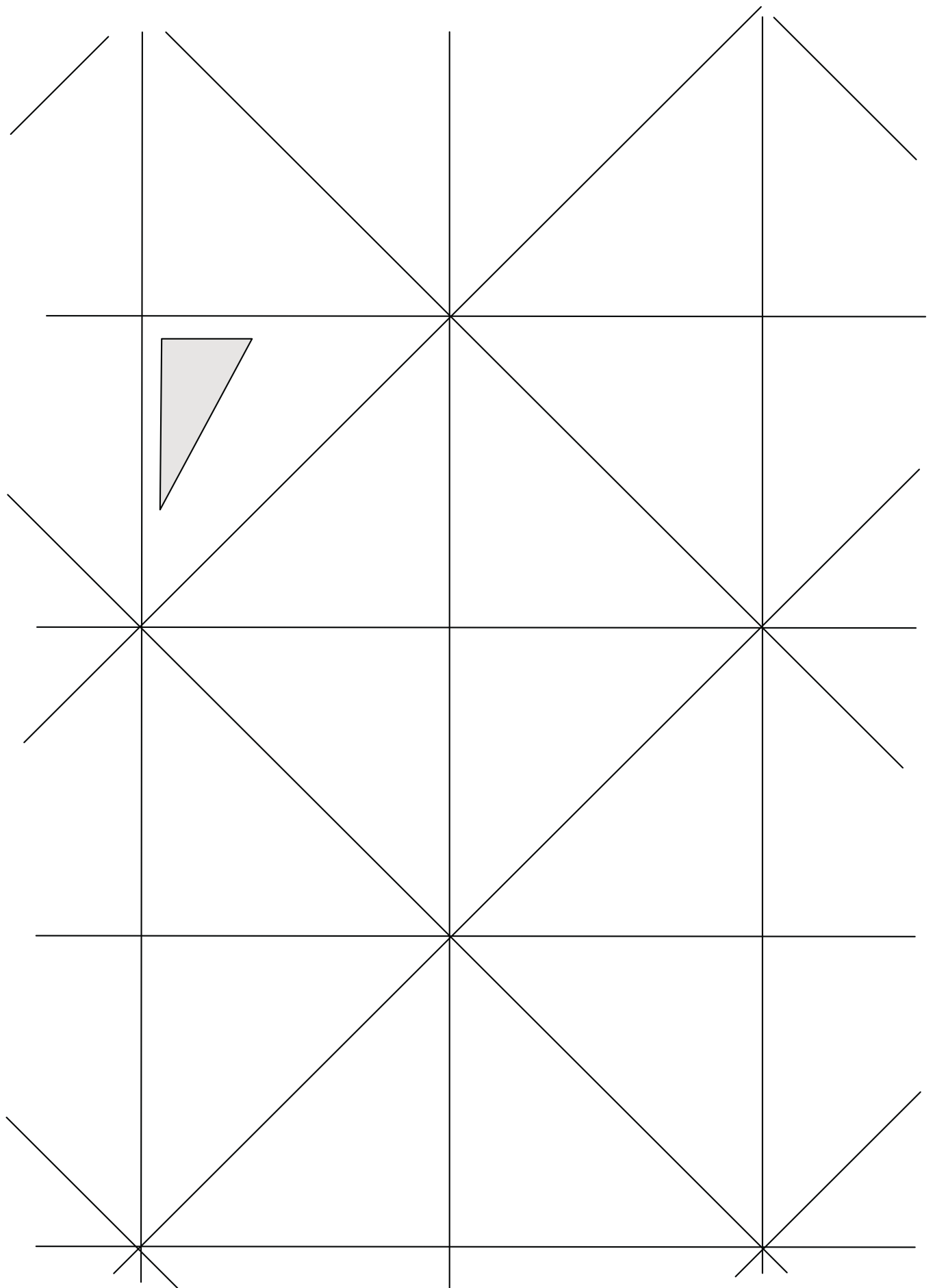
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Make a Wallpaper

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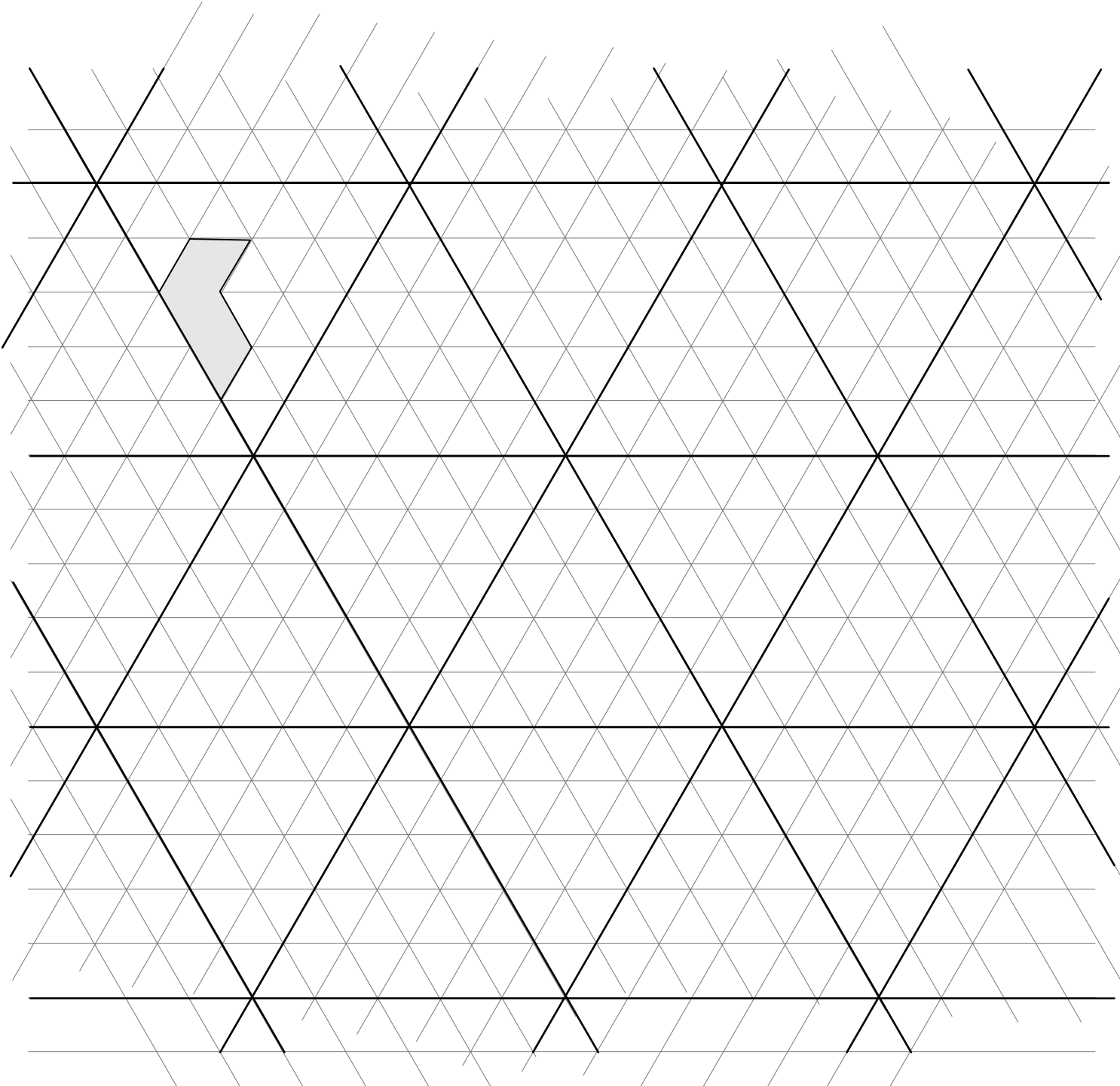


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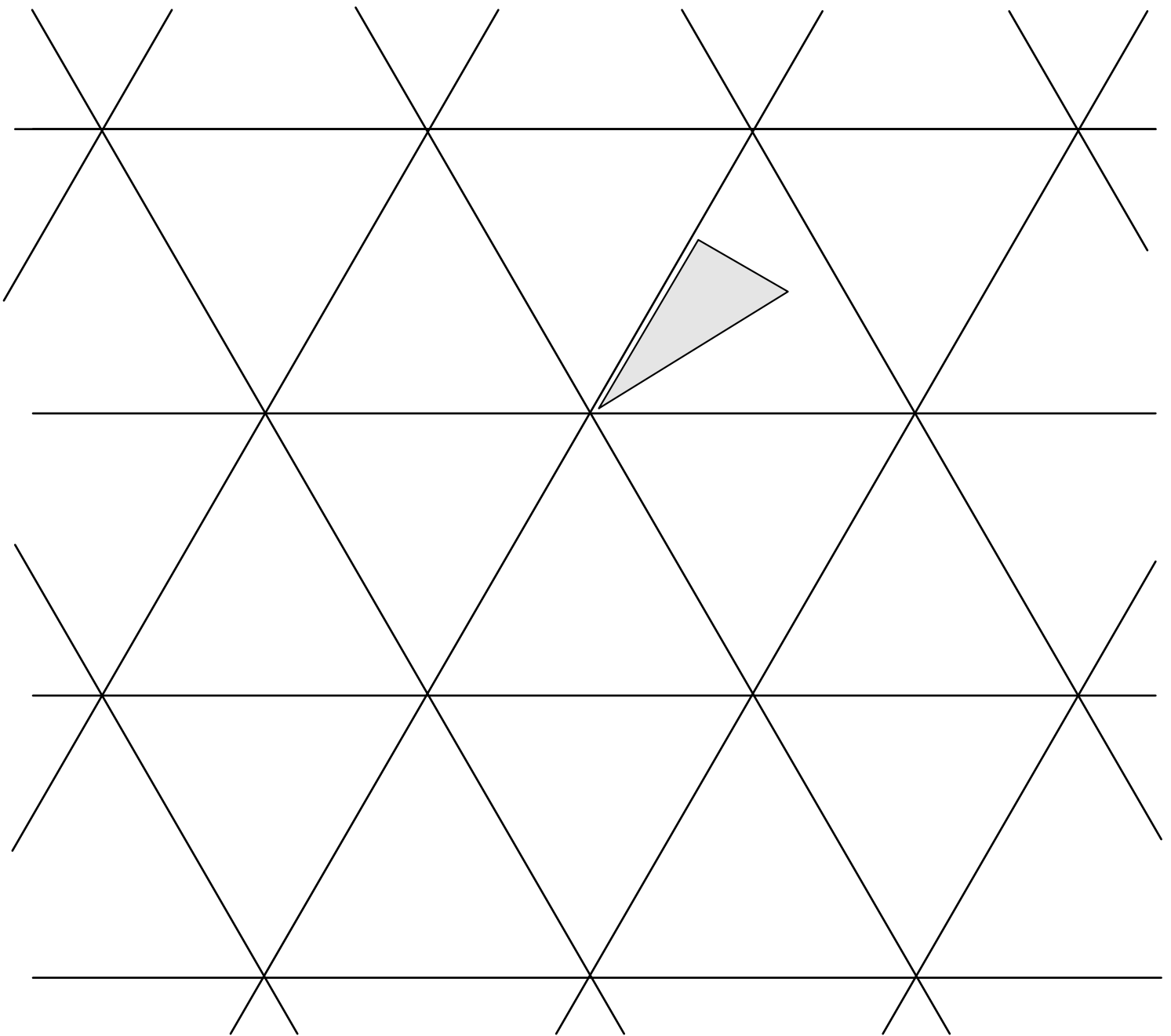
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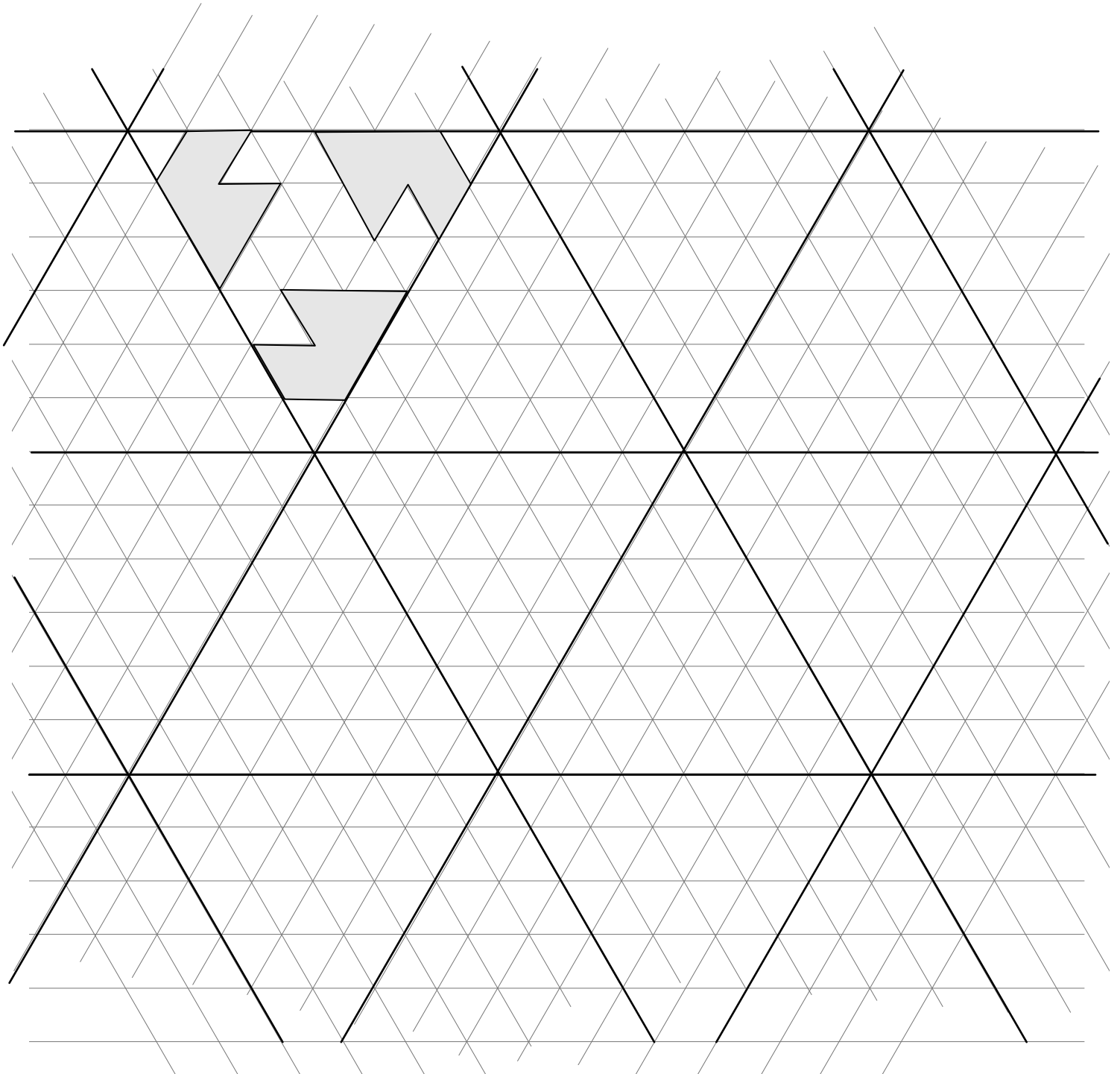
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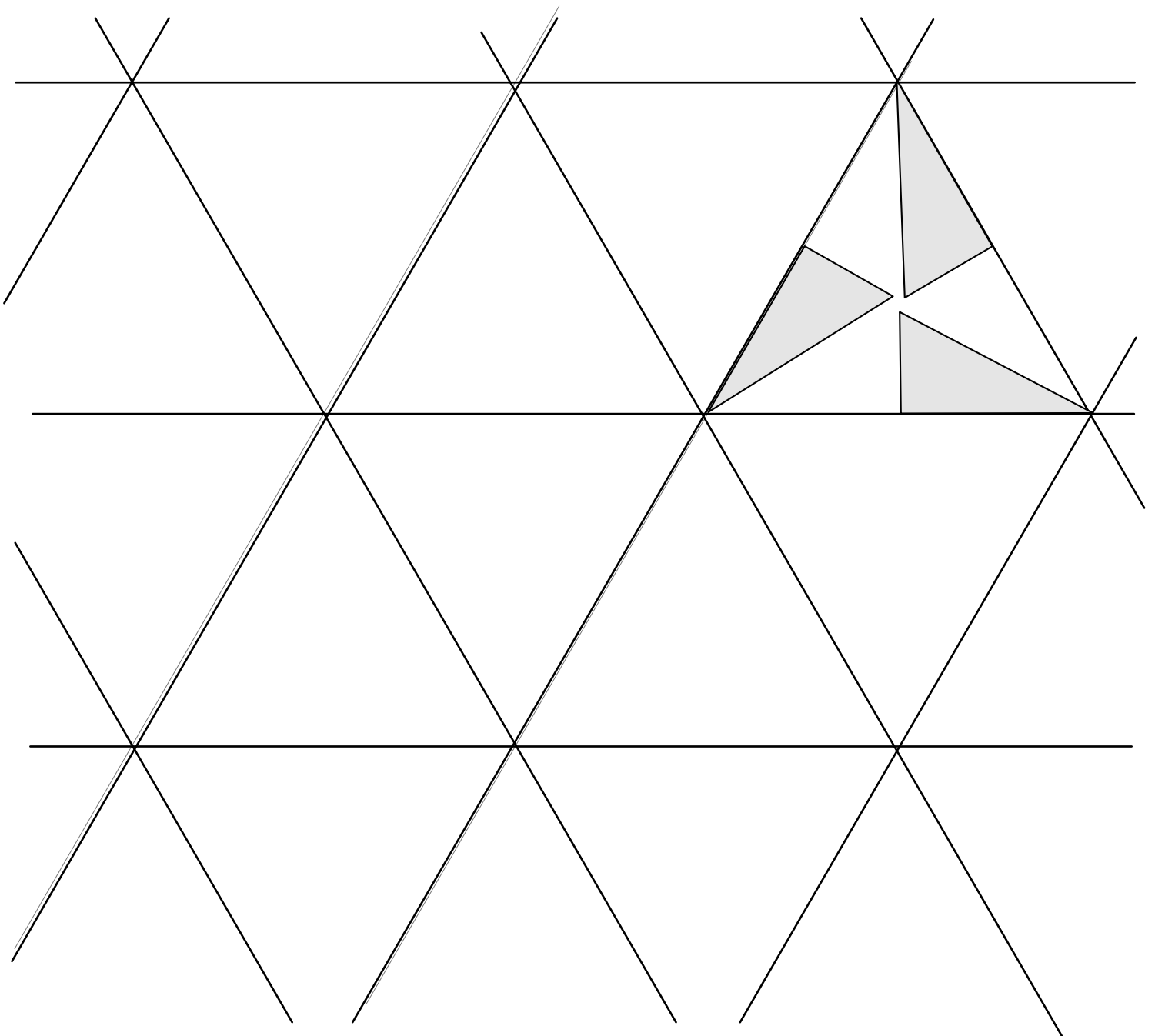
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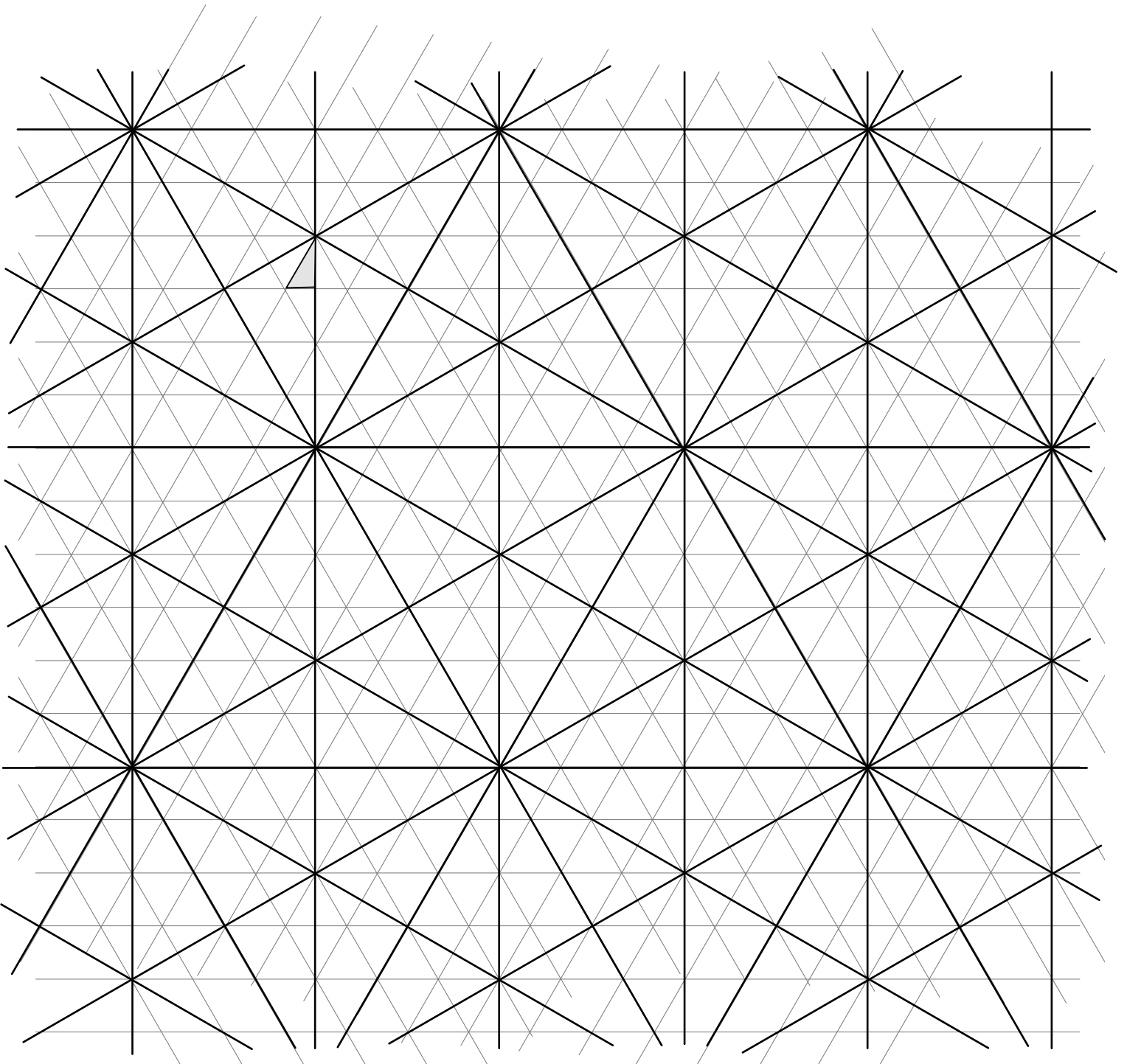
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