Each of these shapes always has two pairs of angles that are supplementary (add up to 180°).
Some of these shapes do not have **all** right angles.
Some of these shapes do not have **any** congruent sides.
What shapes am I thinking of?

Take away shapes that don't fit

Shapes that have all right angles don't fit:

Not a square, not a rectangle,

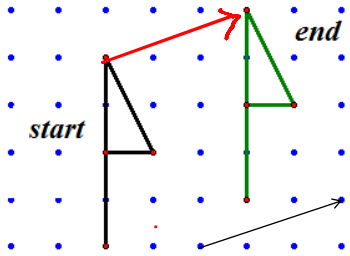
Shapes that always have congruent sides don't fit:

Not a: rhombus, parallelogram, kite,

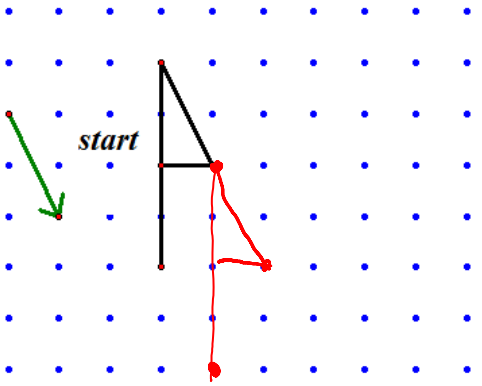
Not a general quadrilateral because we found a quadrilateral without a pair of supplementary angles

The trapezoids we checked did always have supplementary angles.

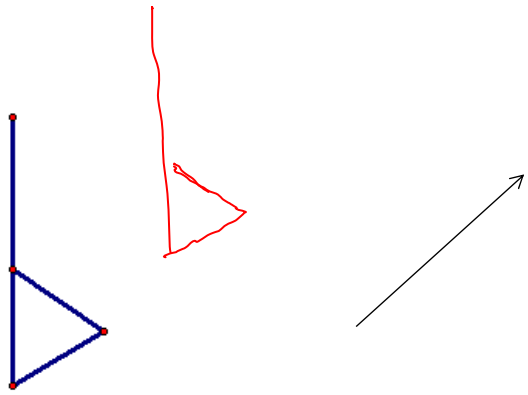
Translations



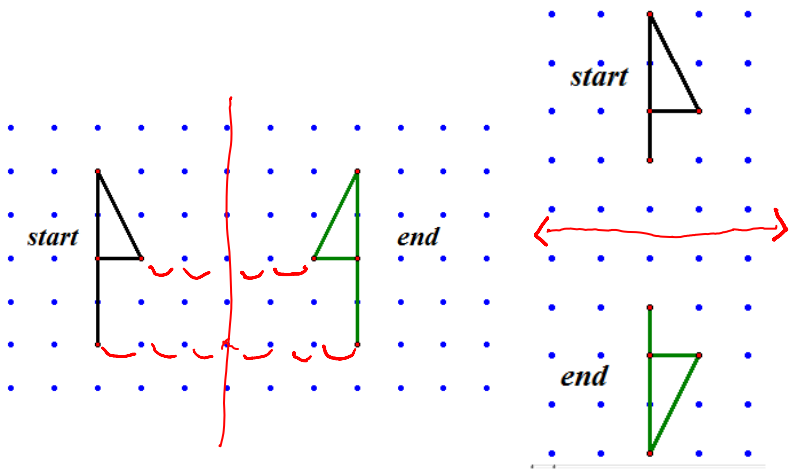
Where should it translate to?



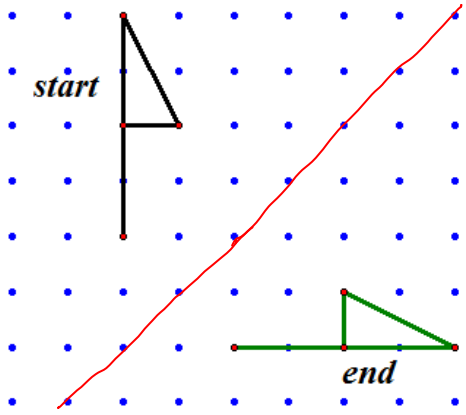
Where should it translate to?



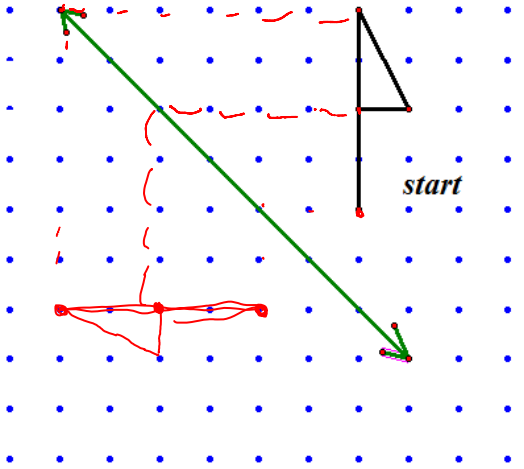
Reflections



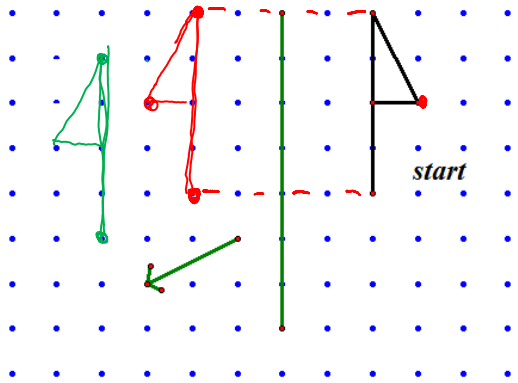
More reflections



Where should this reflect to?



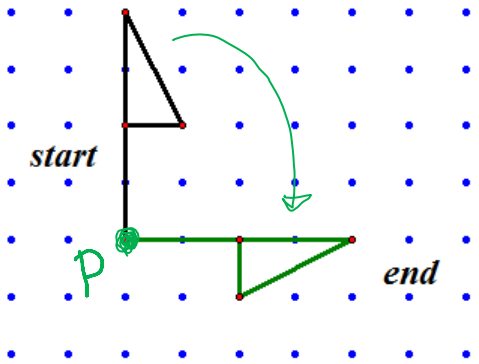
Reflect then translate



Rotations

around P

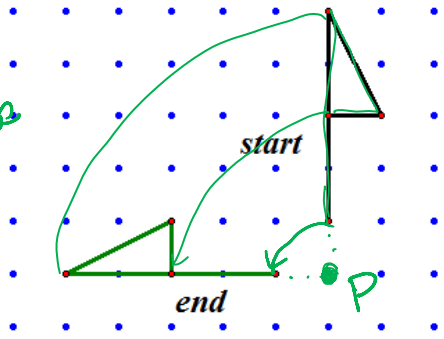
90° clockwise



Rotations

around P

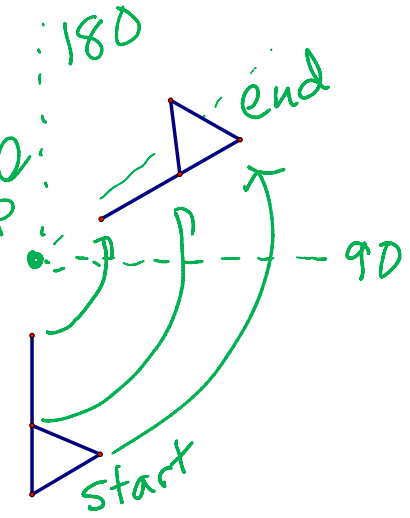
90° counter clockwise



Rotations

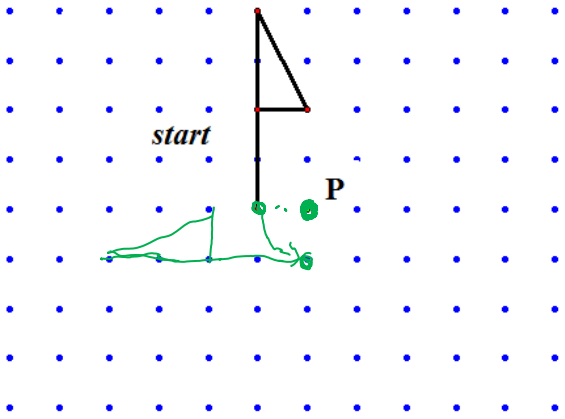
around P

a 110° counter clockwise

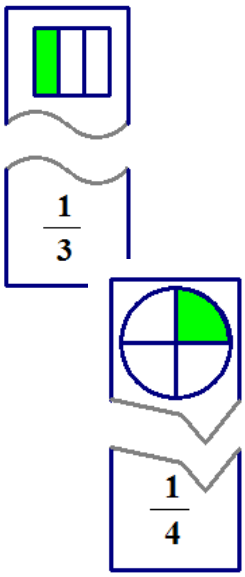


Rotations

Rotate 90° counter clockwise around P



A lesson idea:



- Have students work in small groups preparing sets of fraction cards. Have students write a fraction on the bottom of each card. Then draw a corresponding geometric representation on the top.
- Display the top part and have another group match the bottom part. Then display the bottom portion and have a different group match the top part.
- Name a fraction and have each group that used it show the picture they drew. Students need to know that there are many geometric representations that can be used for the same fraction.

Where's the question?

- Big Ideas: Fractions can be represented in several ways
- Fractions show parts of a whole
- Jessica's idea: How many ways can you show ¼?
- At what level is this an appropriate and important question to answer this?
- Could children understand the question?
- Do they have a way to try to answer the question?
- Are there things they could learn from this question?

what about understanding the numerator* and the denomenator* and why it needs to be set up that way

Give examples and maybe non-examples

Think out examples well to make this into an inquiry lesson.

Inquiry

Start the lesson with a question

Build the activities around children trying to find an answer to the question.