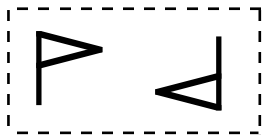
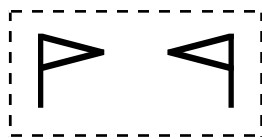


GEOMETRIC TRANSFORMATIONS WORKOUT #1

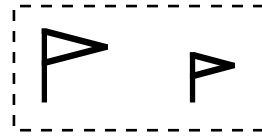
1. Which of these shows a pair of figures equivalent by a **translation**?



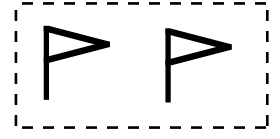
a



b



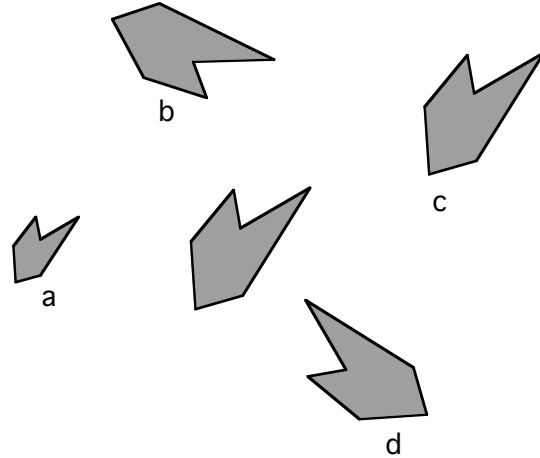
c



d

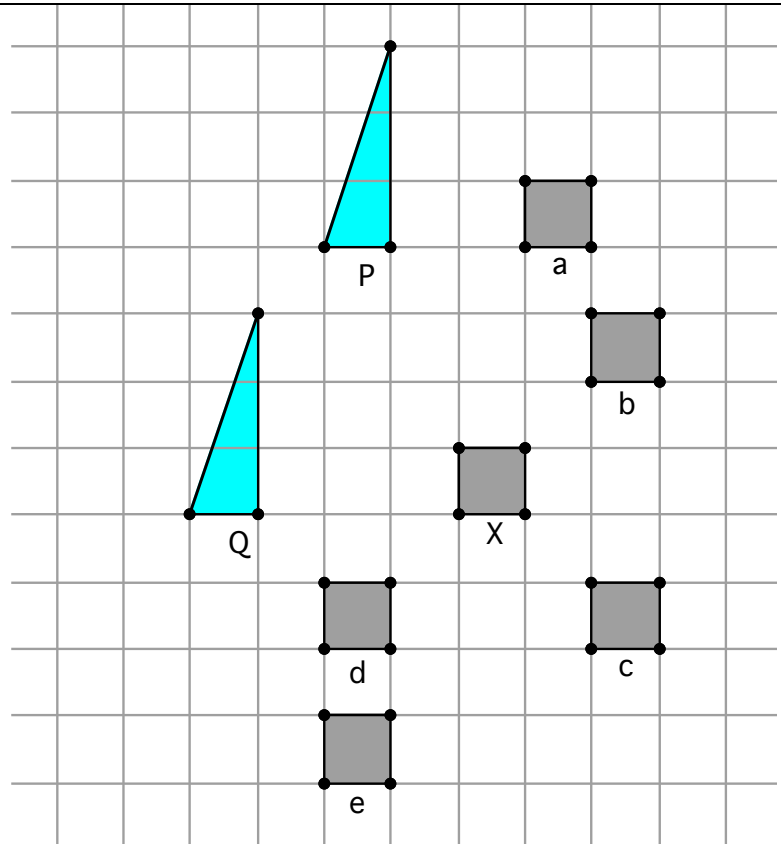
2.

Circle the figures that could be **translations** of the figure in the middle.



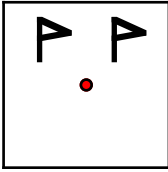
3.

The same **translation** that translates *triangle P* to *triangle Q* would translate *square X* to which square?

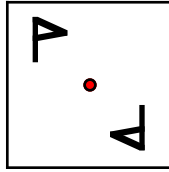


GEOMETRIC TRANSFORMATIONS WORKOUT #2

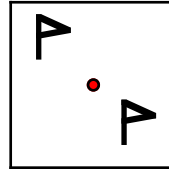
1. Which of these shows a pair of figures equivalent by a **rotation** of the square?



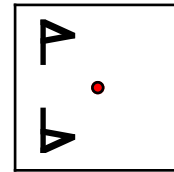
a



b



c

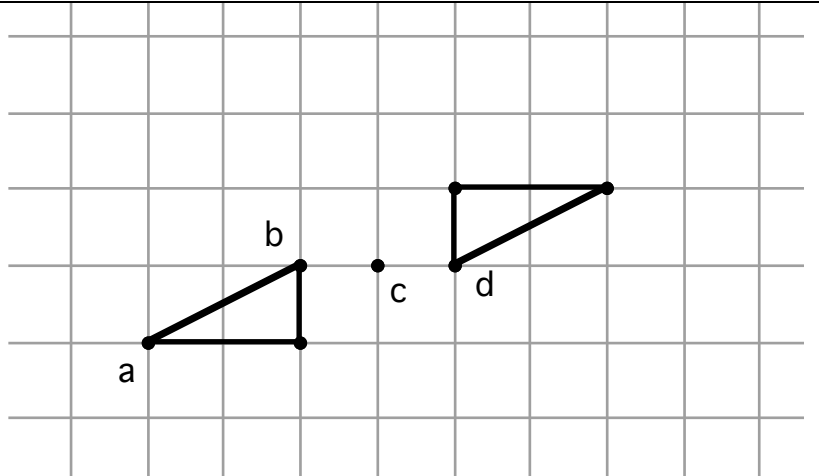


d

2.

The two triangles are equivalent by a rotation.

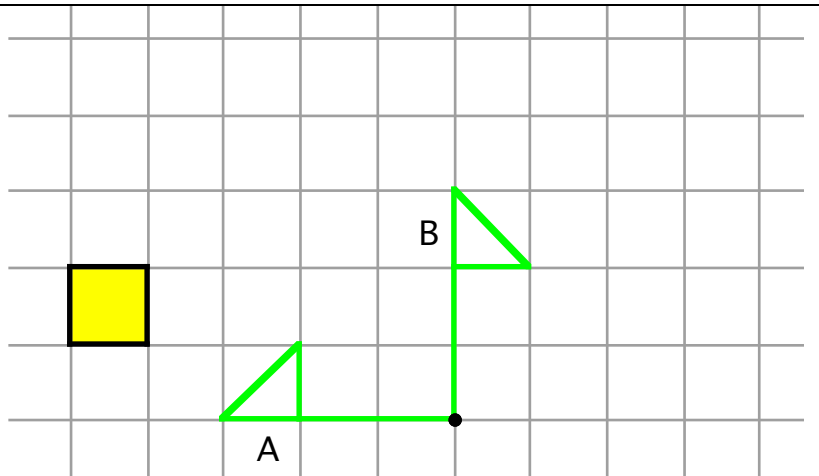
Where is the center of this rotation?



3.

A **rotation** sends figure A to figure B.

Draw where this **rotation** sends the yellow square.

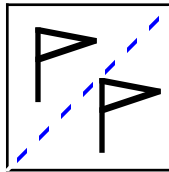


GEOMETRIC TRANSFORMATIONS WORKOUT #5

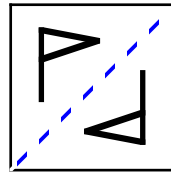
1. Which of these pictures shows two objects equivalent by a **reflection** in the dotted line?



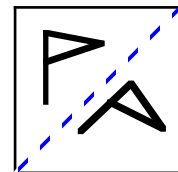
a



b



c



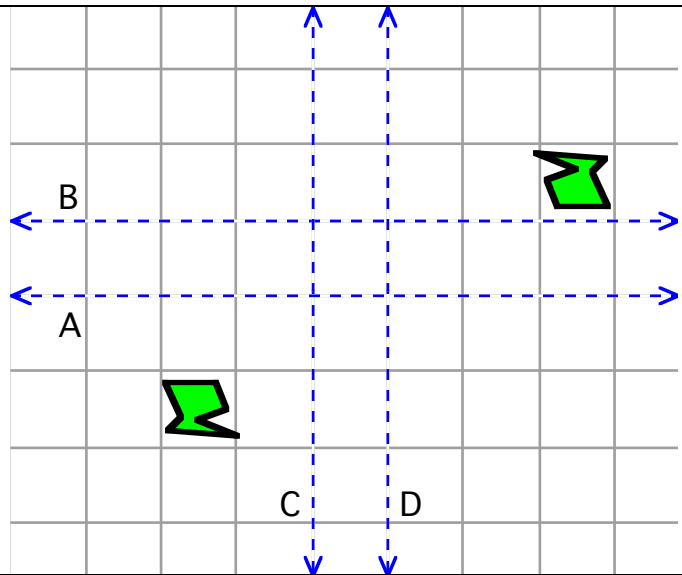
d

2.

Two reflections can be combined by in reflecting first in one line, then reflecting in another.

Reflecting in which two lines will send the one figure to the other figure?

Does it matter which order? (Is reflecting in line A then line B equivalent to reflecting first in line B then in line A?)



3.

Where is the image of figure x if it is reflected first in line P then in line Q?

