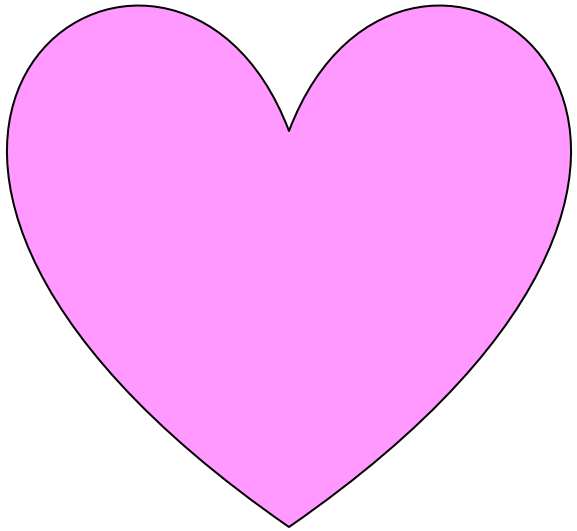
9.1-9.2

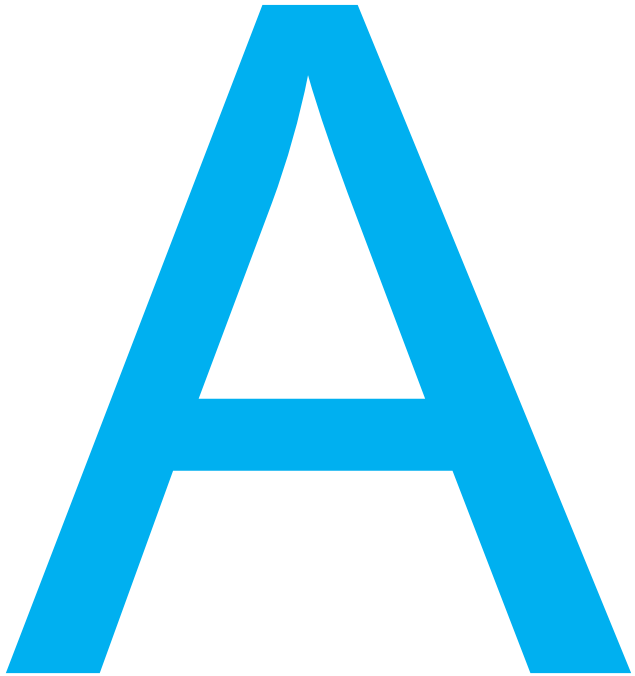
Exploring Symmetry, Translations, & Vectors

Line Symmetry

When parts of a figure are _____ of each other around a line.



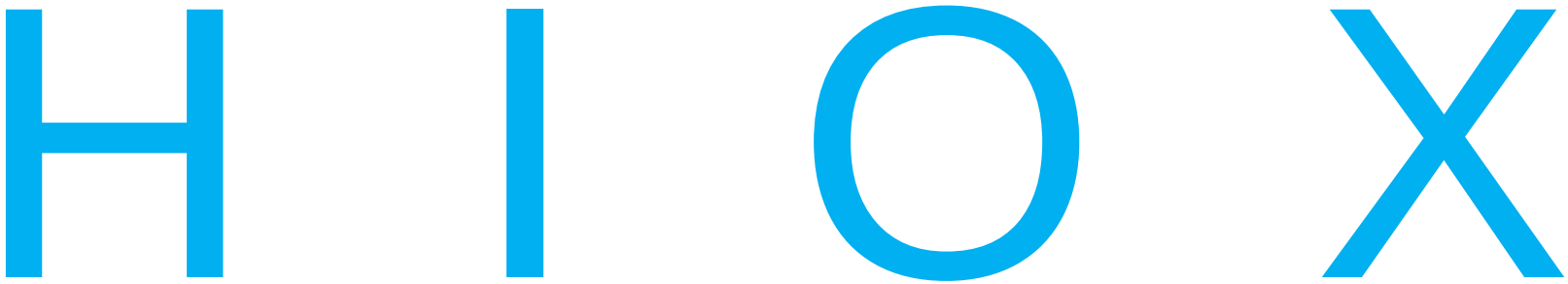
A figure can have more than one line of symmetry.


A

A C D E

M T U V

W Y


HIOX

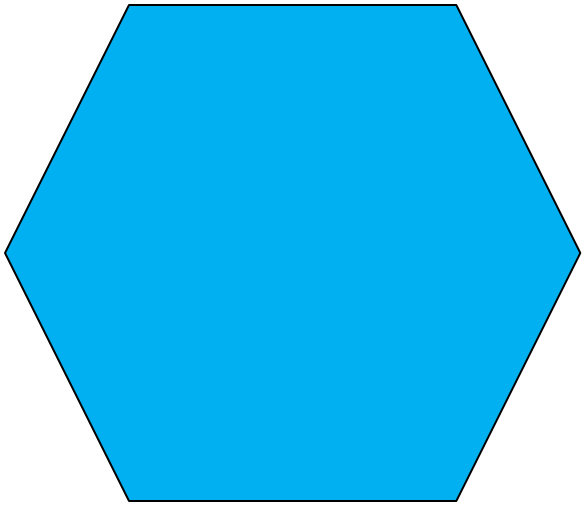
How about these?

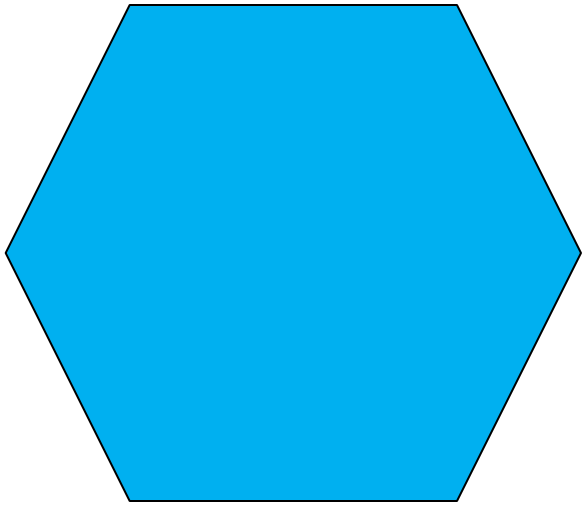
S

Z

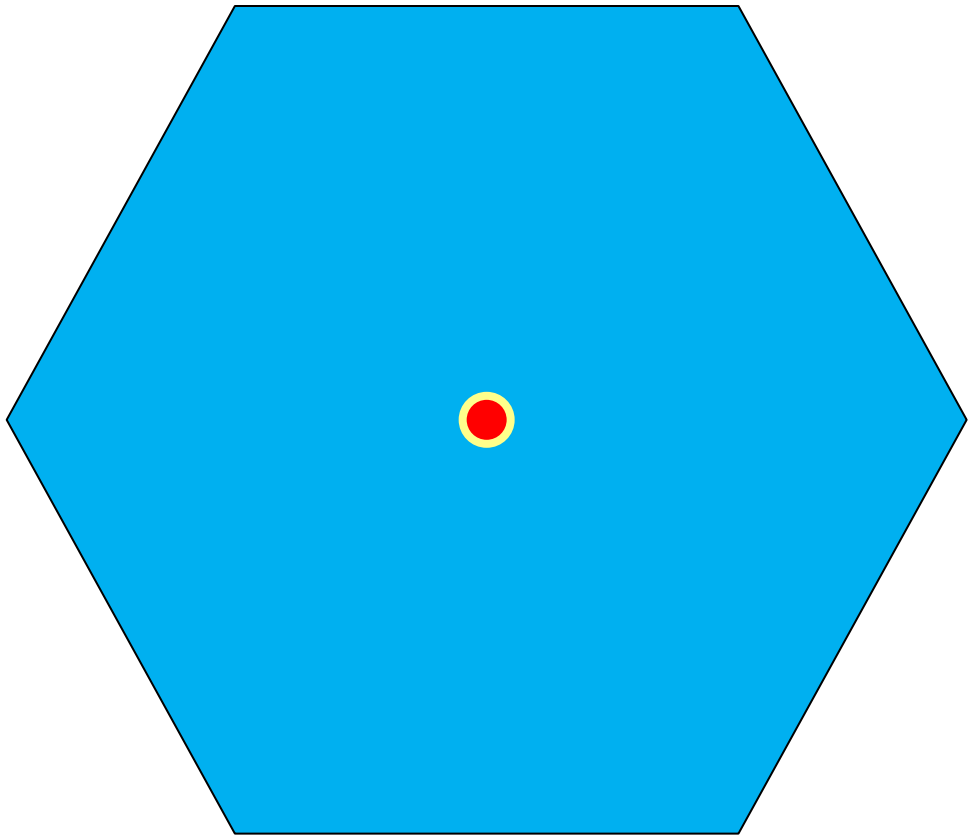
Rotational Symmetry

A figure is said to have rotational (or point) symmetry when you are able to _____ an object to see if it will eventually look the same before it can be turned _____.

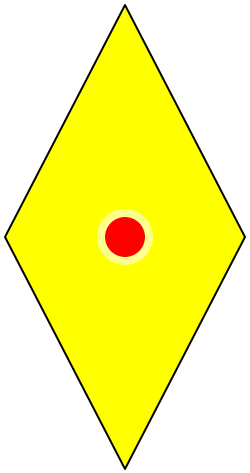


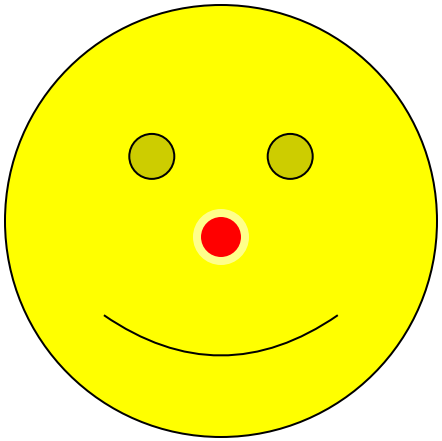


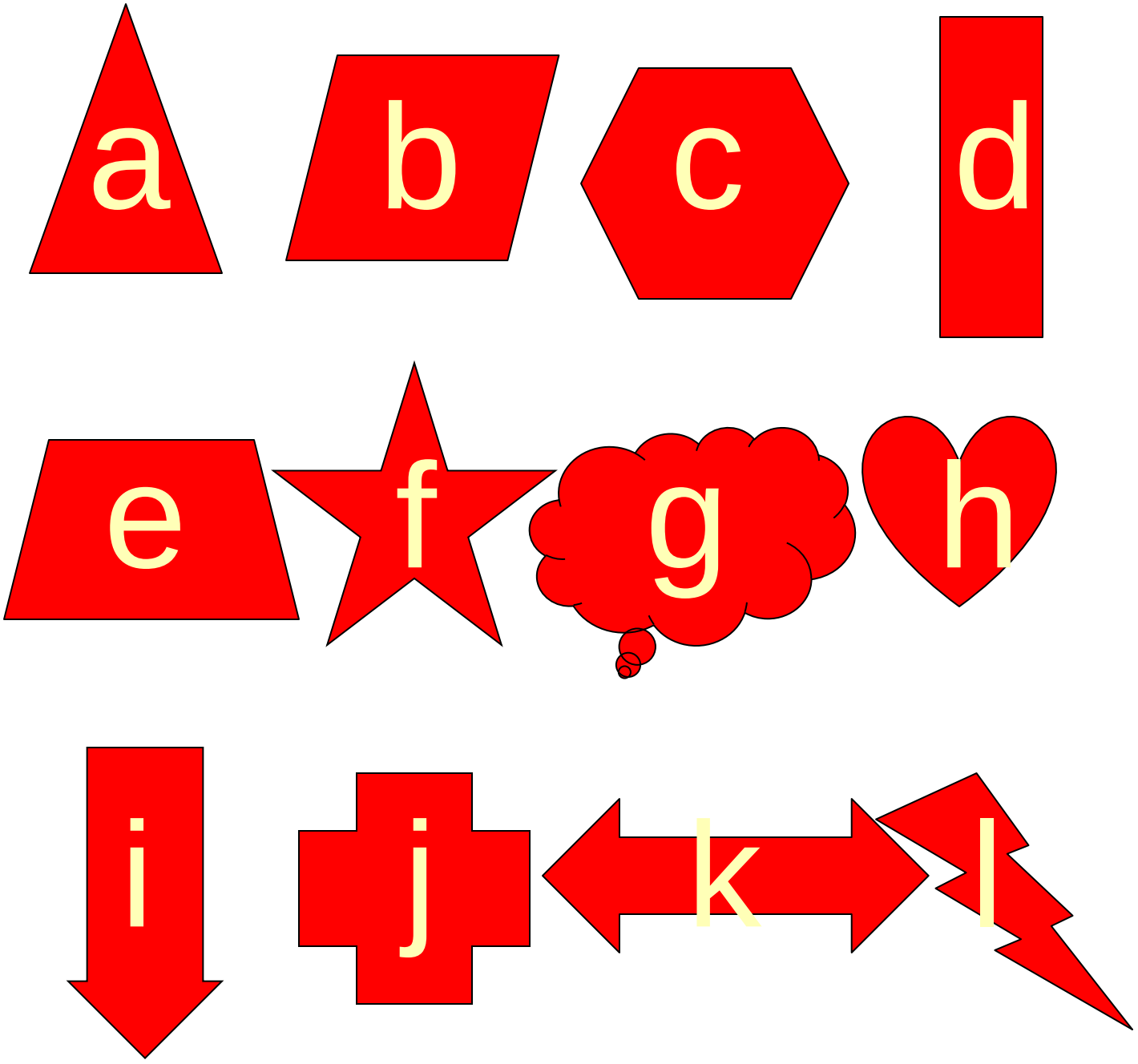
How to figure out the angle of rotation



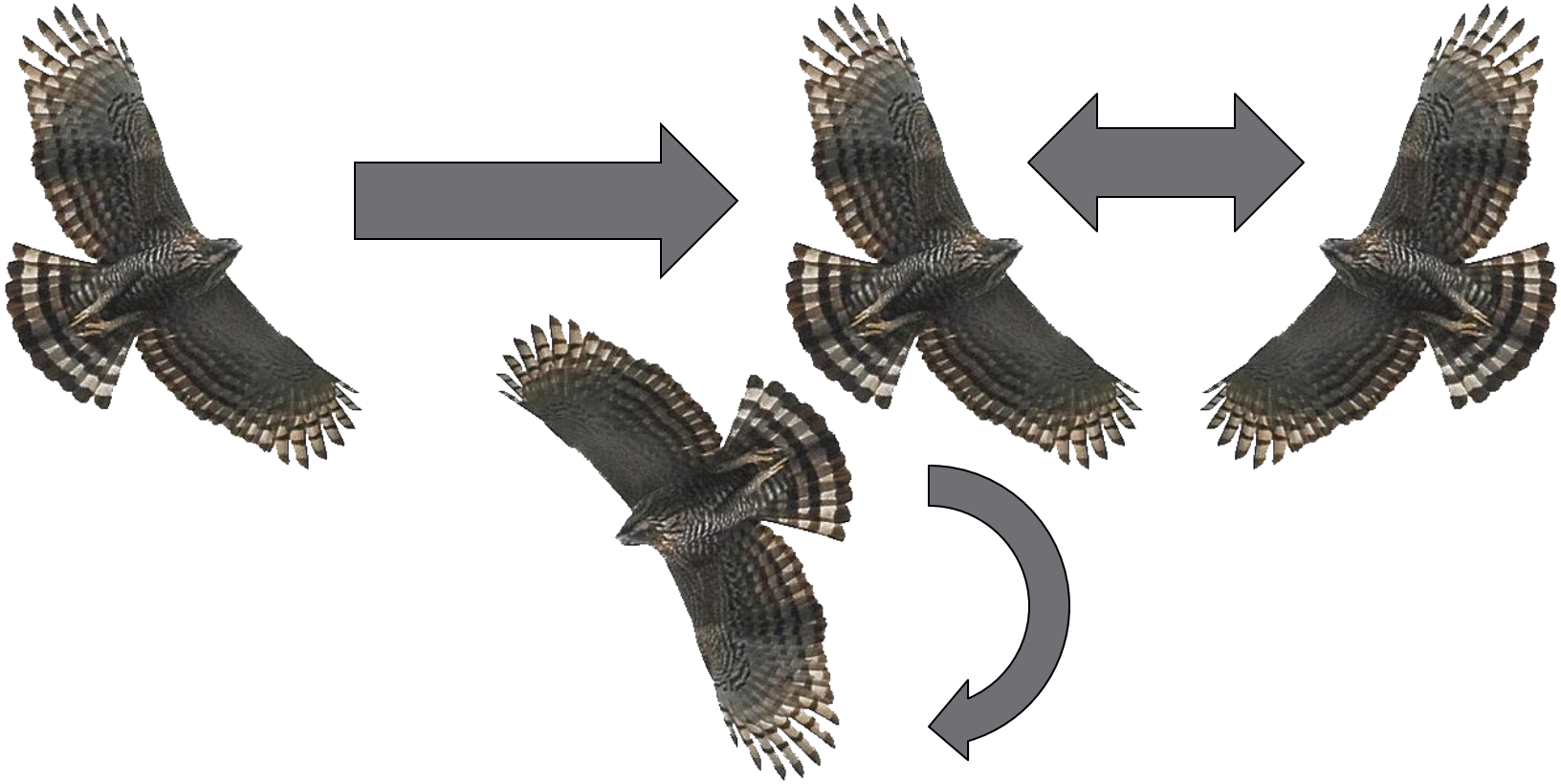
Do these have rotational symmetry?



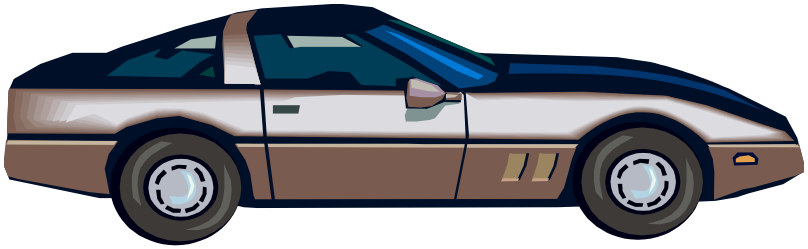


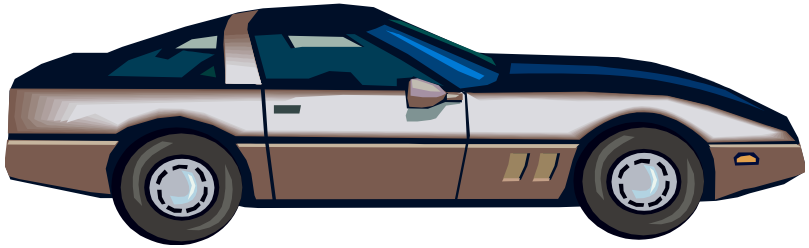

a
b
c
d
e
f
g
h
i
j
k
l

What are Transformations?

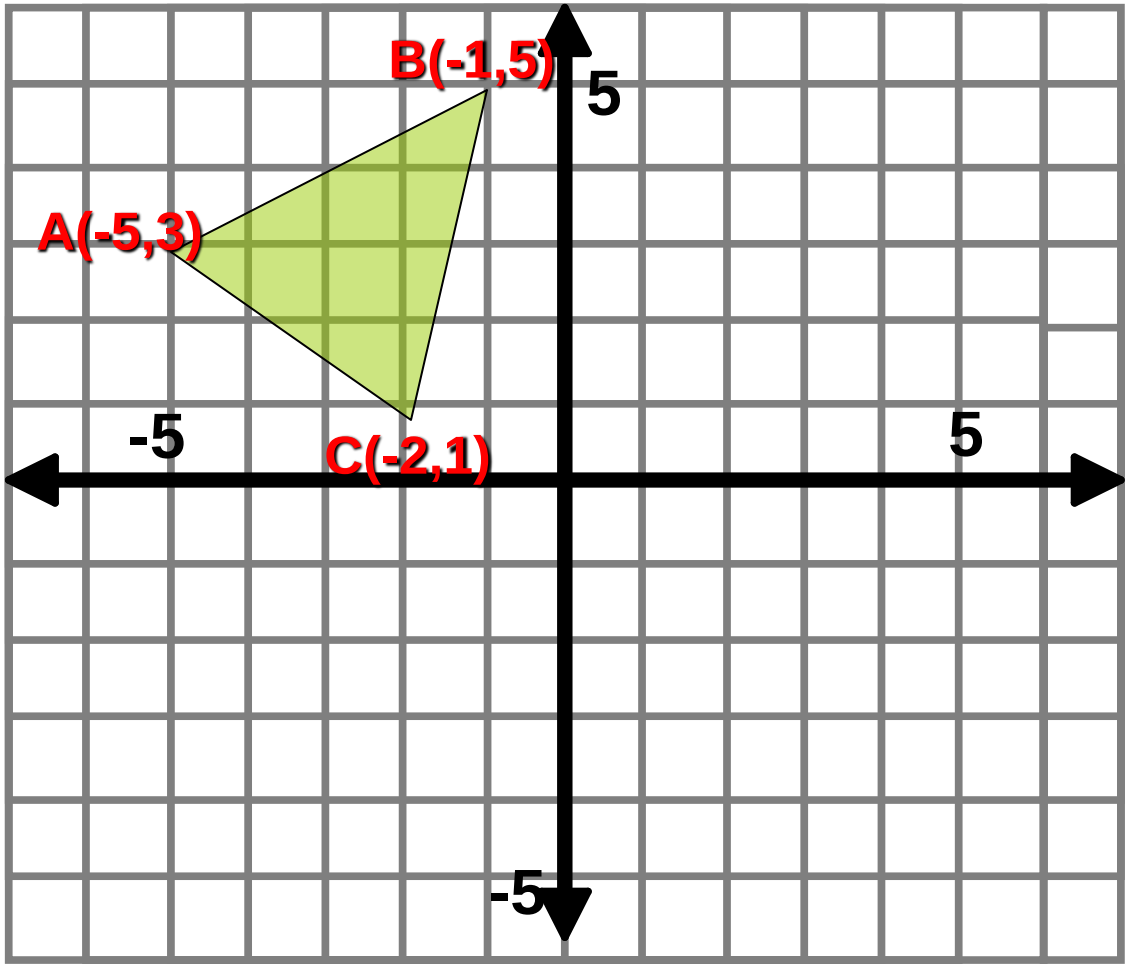


Translation





Translations on a Coordinate Plane Using a Rule



Rule:

(x,y)→(x+6, y-5)

Afterwards…

(x,y)→(x-8, y-2)

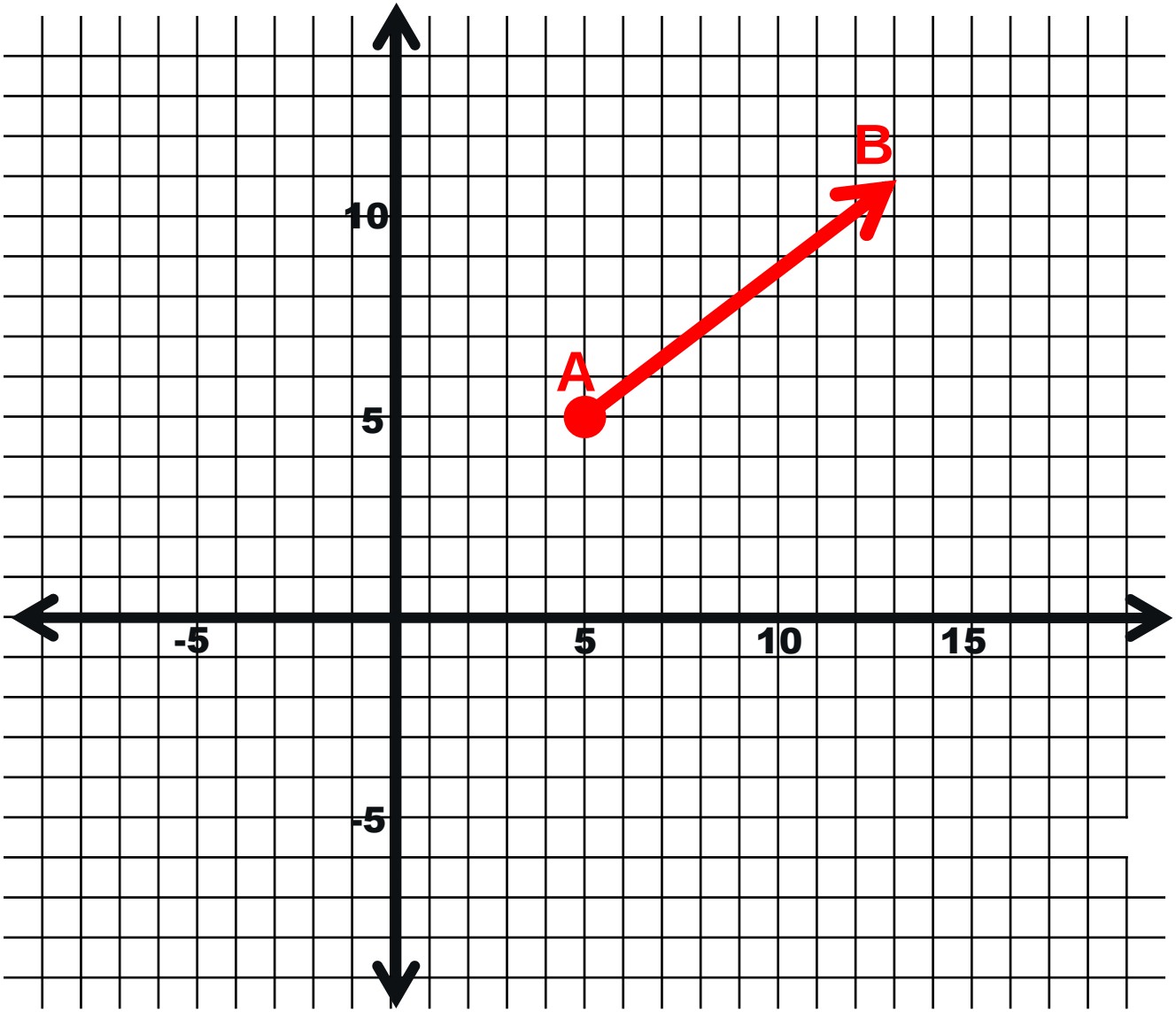
Vectors

A quantity that has direction and magnitude

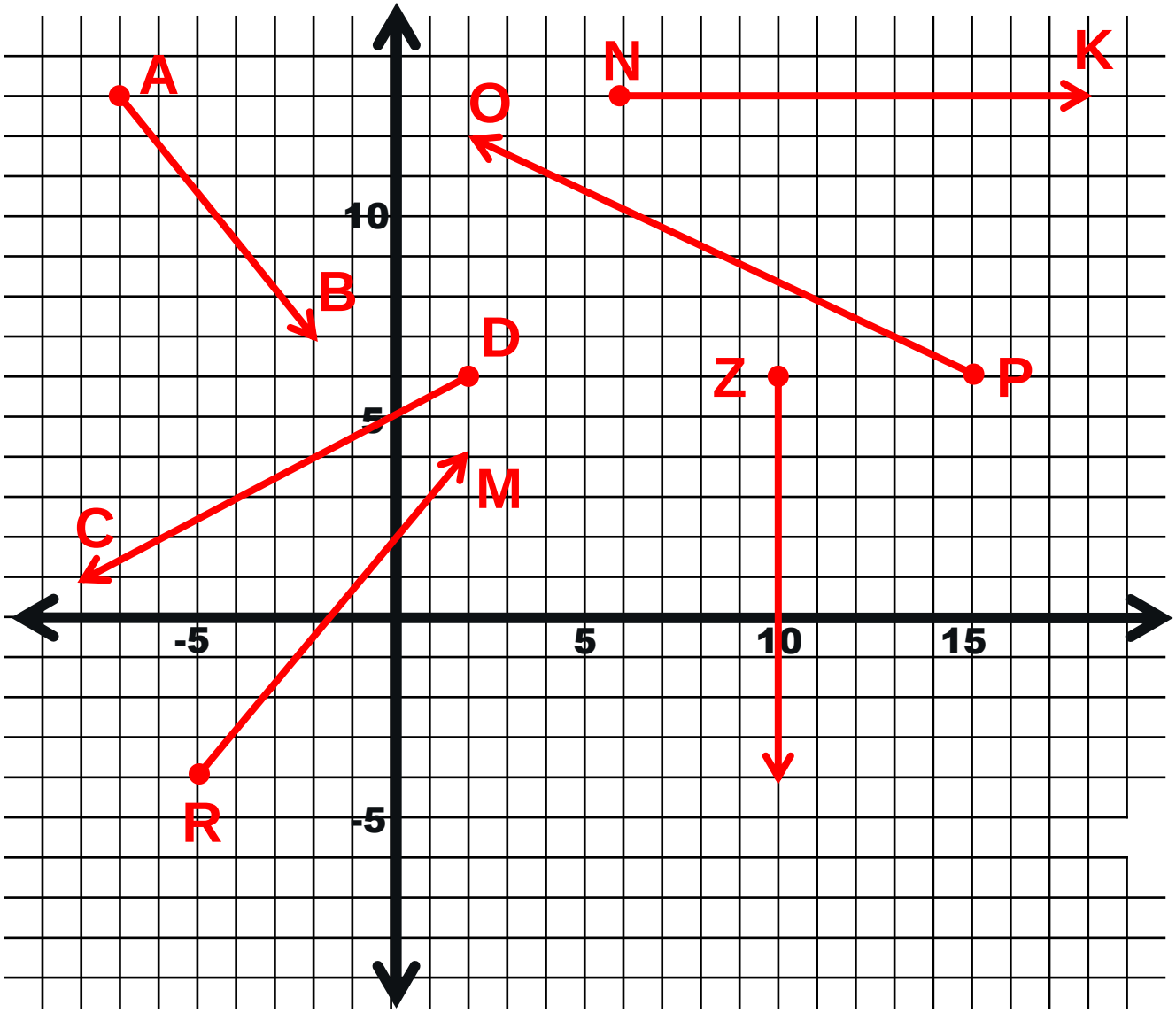
Name:

Magnitude:

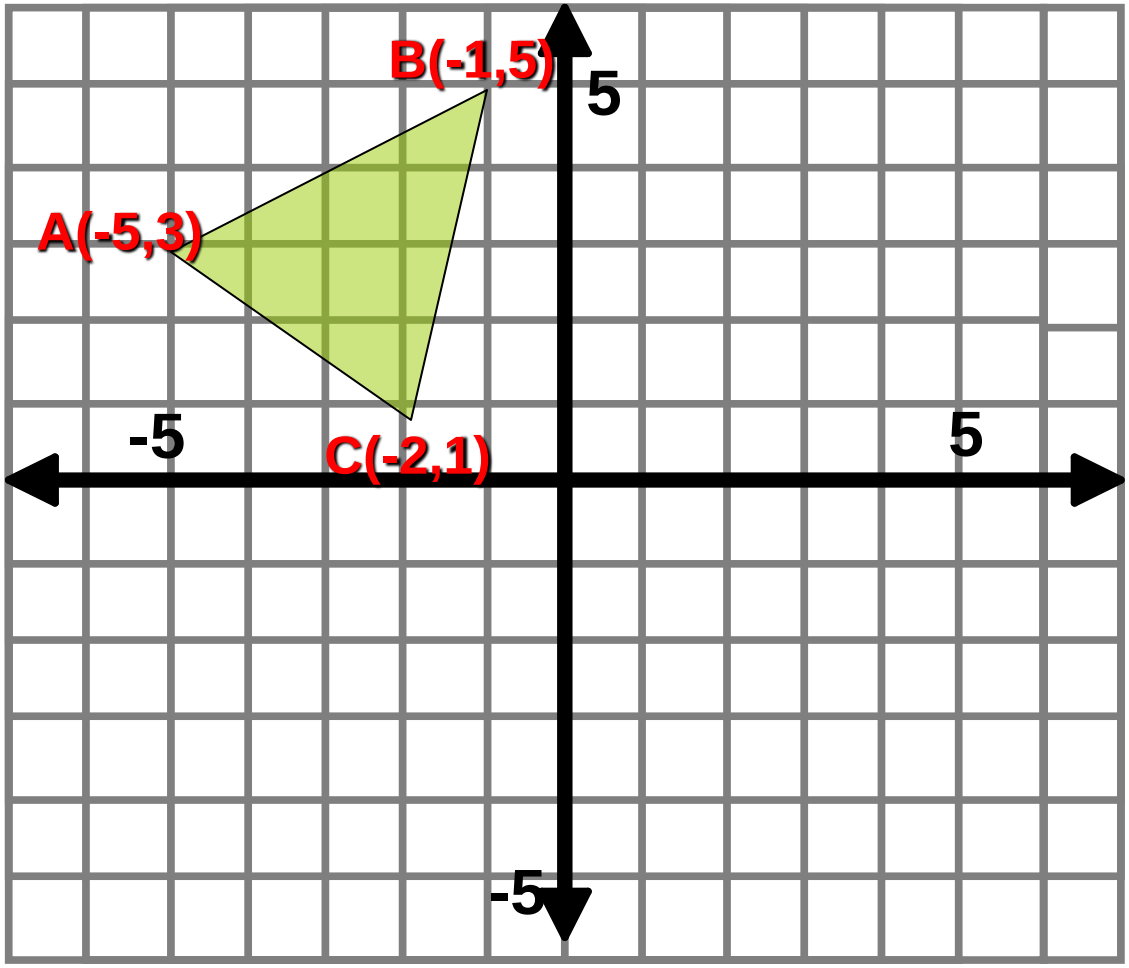
Component Form:



Name the following vectors and indicate their component form.



Translations on a Coordinate Plane Using a Vector



Translate using the components of the vector:

$$\langle 5, -6 \rangle$$