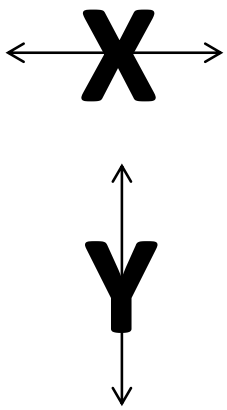
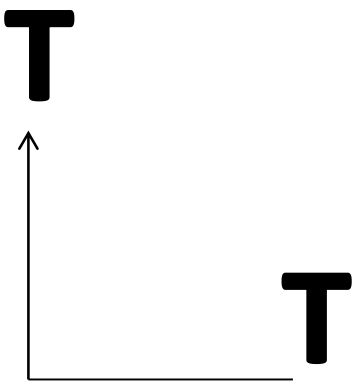
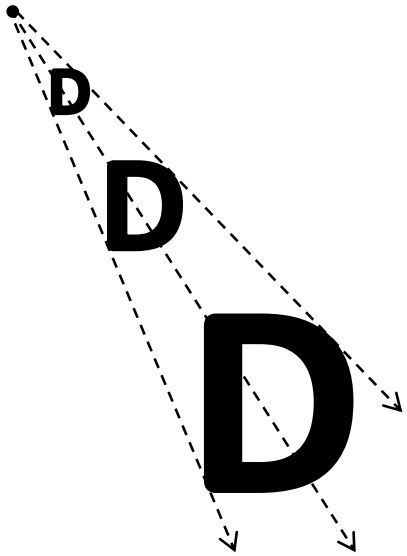
Reflection



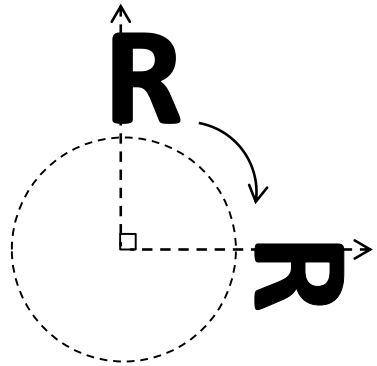
Translation



Dilation
(compression)



Rotation



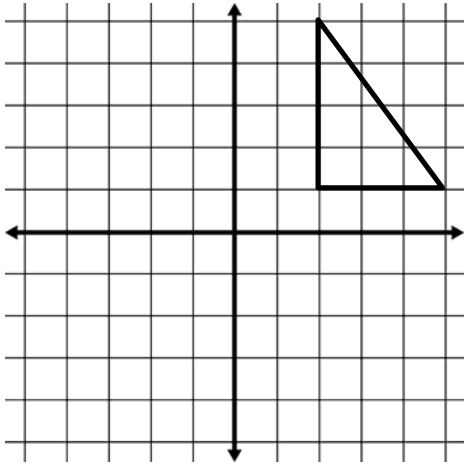
slang: slide

motion: rigid

measurement: distance

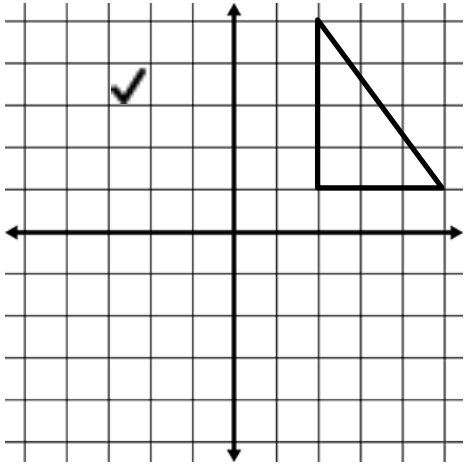
definition:
all points of a figure move a given distance (horizontal and/or vertical)

translate left 4 **and down** 2
(x, y)→



X-axis reflection:
(x, y)→

Y-axis reflection:
(x, y)→



slang: flip

motion: rigid

measurement: distance

definition:
all points of a figure move the opposite direction across a fixed line by the distance (horizontal or vertical) between each point and the given line

slang: turn

motion: rigid

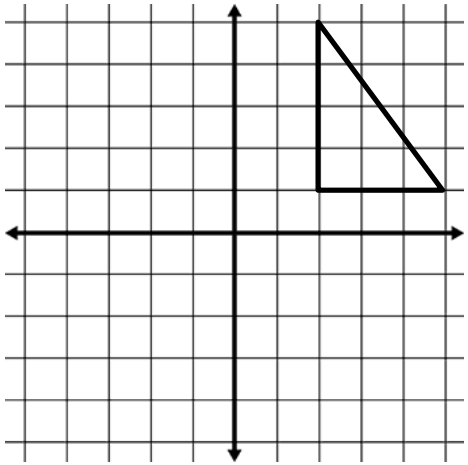
measurement: angle

definition:
all points of a figure move a specified direction about a fixed point by a given angle

90° **cw rotation:**
(x, y)→

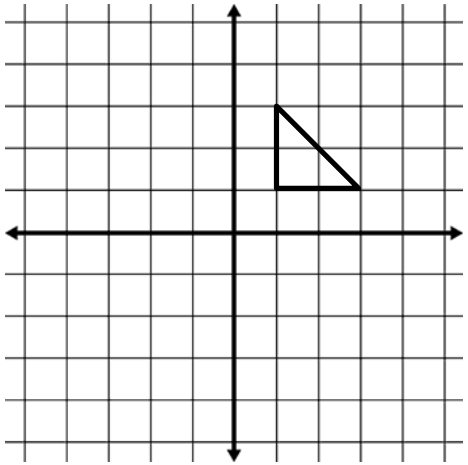
90° **ccw rotation:**
(x, y)→

180° **rotation:**
(x, y)→



center of dilation: (0, 0)
scale factor: $\frac{1}{2}$
(x, y)→

center of dilation: (0, 0)
scale factor: 2
(x, y)→



slang: stretch
(shrink)

motion: flexible

measurement: distance

definition:
the distance between all points of a figure and a fixed endpoint lengthened (shortened) by a common factor