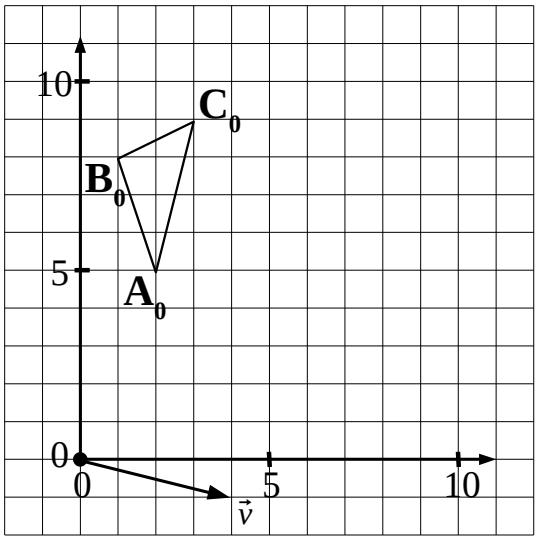
Math 4 Classwork #23

1. Vector $\vec{v}$ presents motion of the plane occurring each second.

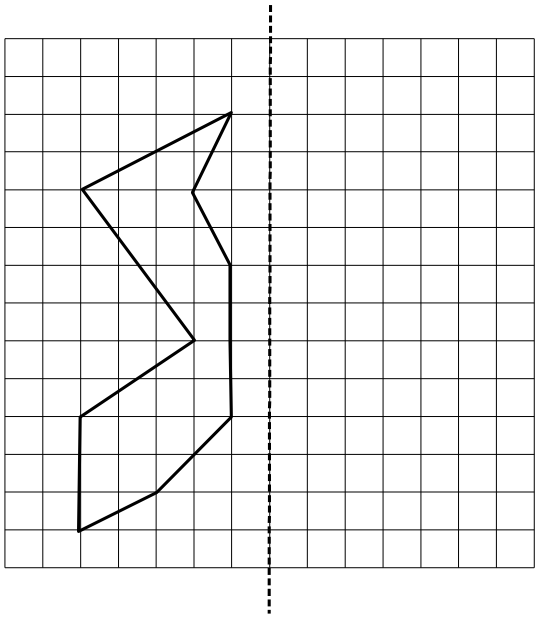
Initially a triangle is located at the position $\triangle A_0B_0C_0$

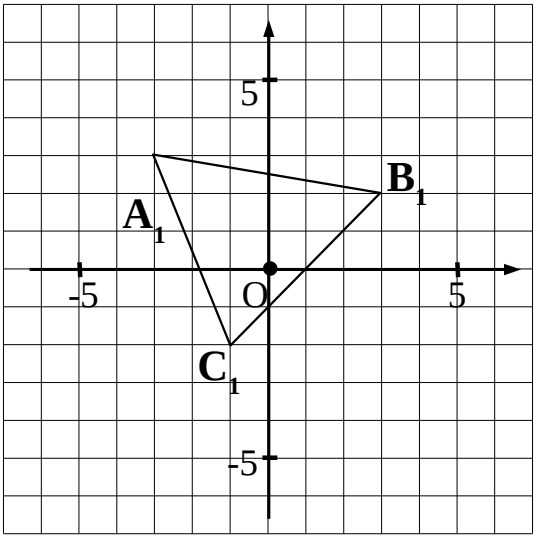
Find $\triangle A_1B_1C_1$, the position of the original triangle after 1 second.

Find $\triangle A_2B_2C_2$, the position of the original triangle after 2 seconds.



2. Plot the mirror image of the shape.



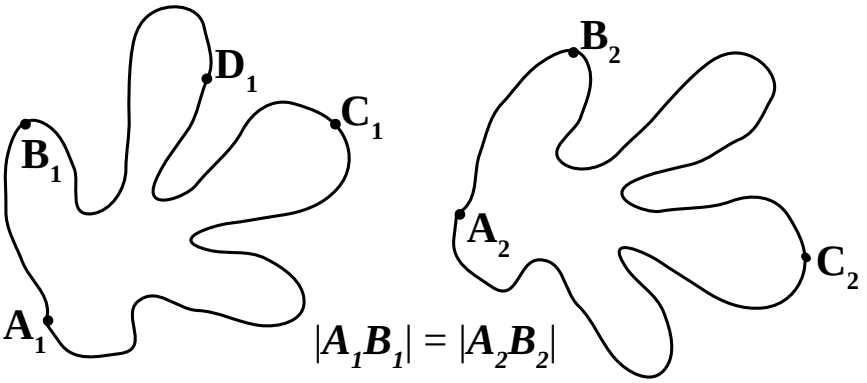


3. Plot $\triangle A_2B_2C_2$ produced by stretching $\triangle A_1B_1C_1$ twice together with the plane so that for every point X_1 and its image X_2: $\overrightarrow{OX_2} = 2\overrightarrow{OX_1}$

Congruency.

Sometimes points of two shapes can be matched in such a way that the distance between any two points is equal the distance between the two matching points.

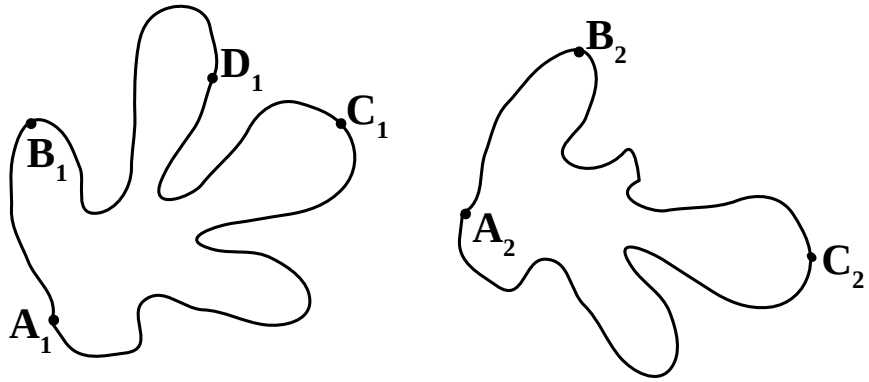
Such two shapes are called **congruent.**



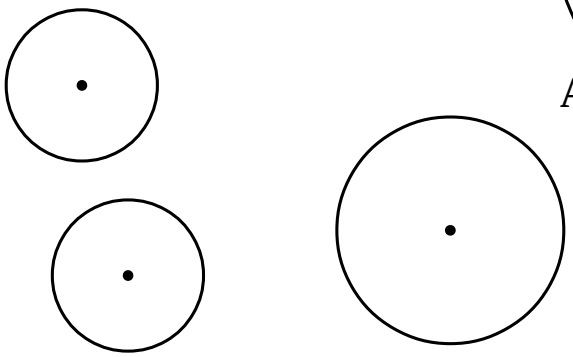
$|A_1B_1| = |A_2B_2|$

Find D_2 matching D_1.

3. Show that the two shapes on the drawing are not congruent.

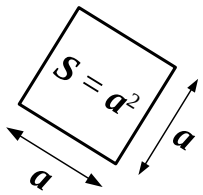


4. When are two circles congruent?



Squares:

a product of a number and itself is called its square: $w^2 = w \cdot w$



5. Remove parenthesis:

$2 \cdot (x + 1) =$ _____ $x \cdot (x + 1) =$ _____

$2 \cdot (x - 1) =$ _____ $x \cdot (x - 1) =$ _____

$2x \cdot (x + 1) =$ _____ $2x \cdot (x - 1) =$ _____

$x \cdot (2x + 1) =$ _____ $x \cdot (2x - 1) =$ _____

$3x \cdot (2x + 1) =$ _____ $3x \cdot (2x - 1) =$ _____

6. Fill in the table to plot a graph of the function:

x	1	2	3	4	5
y