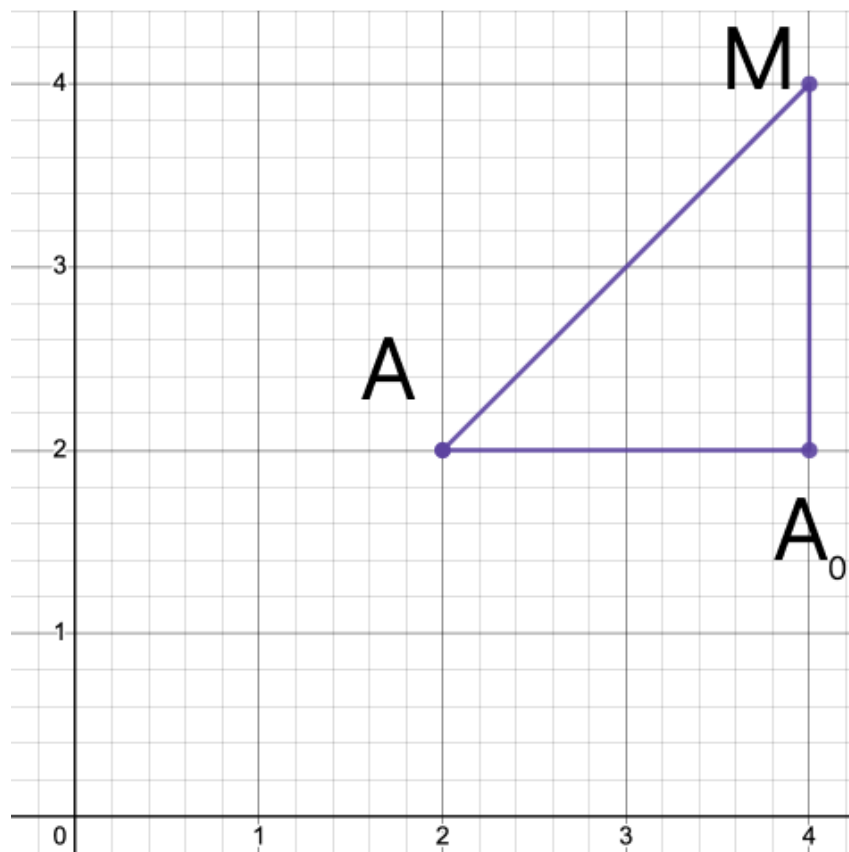


## Ball physics:



We have:

A - current position of the ball

M - current position of the mouse

Our task is to determine amount of steps on y and x axis

First of all we need to draw the line AM and define its length.  
To determine length we mark point  $A_0$  and we count length of:  
 $AA_0$  and AM

Then using Pythagorean theorem:

$$AM = \sqrt{AA_0^2 + A_0M^2}$$

And finally:

$$\text{stepX} = AA_0/AM$$

$$\text{stepY} = A_0M/AM$$