GeoGebra Tutorial: Transformation of Functions

- 1. Select the freehand shape tool $\frac{1}{100}$, draw an arbitrary function f.
- 2. Select the function inspector tool \bigcup . Click f(x) in Algebra view. Choose "Point" tab. Select

and enter 1 in "Step". Drag the red point on the graph. Delete it when it's not needed.

3. Create a point on f.

-3.5, 3.4)

3 - 2

-	⊙ Number Name				
. –	O Angle k				
	○ Integer □ Random				
	Interval Slider Animation				
	Min: -5 Max: 5 Increment: 0.1				
\rightarrow	Annte Consel				
	Apply Cancel				

- 4. Use the slider tool $\underline{=2}$ to create a slider k with value from -5 to 5.
- 5. Input: **u=Vector**[(**k**,0)]. Hide this vector.
- Select the translation tool Select the point A and then the vector u. You should get the image A'.
- 7. Select the translation tool \checkmark again. Click the function

f and then the vector $\boldsymbol{u}.$ You should get the image $f_1.$

- 8. Set and show the caption of f and f_1 as shown.
- 9. Use the vector tool 🦯 to create another vector v.
- 10. Make some decorations as you like.



? Preferences - task_transformation.ggb						
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Function ¹	Basic Color Style Advanced Scripting					
• f ₁	Name: f					
∍ Number	Definition: Function[{-5.88, 8.12, 1.22, 1.25,					
k ∎ ∎ Point	Caption: f(x)					
	□ Show Object					
Vector	Show Label: Caption					
u 🗸						

references - task_transformation.ggb						
Function [△]	Basic Cold	or Style Advanced Scripting				
	Name:	f_1	x Î			
	Definition:	Translate[f, u]				
• • • •	Caption:	?				
Show Object		bject				
	Show La	abel: Caption 🗸				
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