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Assignment Lesson 10

1. What is sampling?

Sampling is related to coordinates values (Nyquist frequency).

1. How to transform a 2D continuous signal into a discrete signal?

There are 2 ways to do this:

* Technological solution
* Digital camera
* Scanner for paper documents
* Theoretical solution
* Sampling theory

1. How to move geometrical objects?

* Translation: moves an object a fixed distance to a different position. It is one of the simplest transformations.
* Rotation: rotates the object at a particular angle ϴ (theta) from its origin.
* Scaling: changes the size of an object.

1. What is linear interpolation?

* is a method used to estimate pixel values between two known pixel values in an image. It is a simple and commonly used technique for image resizing, scaling, or generating intermediate values.

1. Among 4 interpolation methods, in your opinion which one is the best? Why?

* Among 4 interpolation methods, in my opinion the 3 interpolation is the best. Because it got the smoother and more stable than other interpolation and provides more continuous transition.