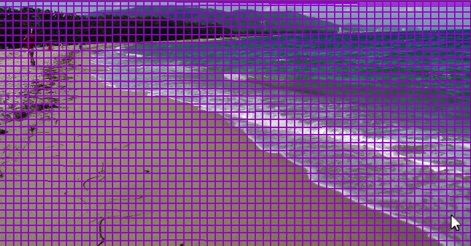
**IMAGE RETARGETING**

Involves resizing, recompositing, reshuffling and inpainting.

While resizing an image, maintaining the aspect ratio is of key importance. But in many cases it is impossible to do so. In such cases, the portions of image having lots of gradient action tends to be preserved with the same size, while not-so-perceptible regions are squished so that the image is resized to desired size.

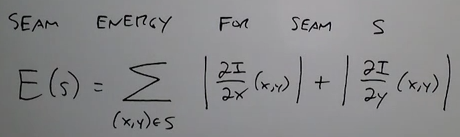




Another method is:

**Seam carving for resizing**

Consider reducing the width of the image by a pixel width. First we have to draw a seam, such that if that if al the pixels along that seam are removed, it should not be perceptible.

The idea is to have a cost function involving the gradients of the pixels along that seam. 

Example:

The same approach can be used to resize an image to bigger scale.

* Reducing image sizes -> removes seams
* Increasing image sizes -> adds seams

So we can add pixels of near average to the neighbouring pixels on both the sides of the seam.

Example:

**Seam Carving for Inpainting**