64 x 64

Image 1

RGB

Divide each pixel value by **255**

$$\begin{bmatrix} a_1 \\ a_2 \\ a_3 \\ \vdots \\ a_{4096} \\ a_{4097} \\ a_{4098} \\ \vdots \\ a_{12286} \\ a_{12287} \\ a_{12288} \end{bmatrix} = \mathbf{u}$$

1 x 12288

64 x 64

Image 2

RGB

Divide each pixel value by **255**

$$\begin{bmatrix} b_1 \\ b_2 \\ b_3 \\ \vdots \\ b_{4096} \\ b_{4097} \\ b_{4098} \\ \vdots \\ b_{12286} \\ b_{12287} \\ b_{12288} \end{bmatrix} = \mathbf{v}$$

1 x 12288

$$\mathbf{u} \cdot \mathbf{v} = (a_1 \cdot b_1) + (a_2 \cdot b_2) + ... + (a_{12288} \cdot b_{12288})$$

$$||\mathbf{u}|| = \sqrt{a_1^2 + a_2^2 + ... + a_{12288}^2}$$

$$||\mathbf{v}|| = \sqrt{b_1^2 + b_2^2 + ... + b_{12288}^2}$$