1. domaća zadaća – rješenje

Srednja kvadratna pogreška za slike A i B

$$MSE = \frac{\sum_i^4 \sum_j^4 (x_{i,j} - y_{i,j})^2}{4 * 4} = \frac{1}{16} * \left[\left(x_{1,1} - y_{1,1}\right)^2 + \left(x_{1,2} - y_{1,2}\right)^2 + \left(x_{1,3} - y_{1,3}\right)^2 + \left(x_{1,4} - y_{1,4}\right)^2 + \left(x_{2,1} - y_{2,1}\right)^2 + \left(x_{2,2} - y_{2,2}\right)^2 + \left(x_{2,3} - y_{2,3}\right)^2 + \left(x_{2,4} - y_{2,4}\right)^2 + \left(x_{3,1} - y_{3,1}\right)^2 + \left(x_{3,2} - y_{3,2}\right)^2 + \left(x_{3,3} - y_{3,3}\right)^2 + \left(x_{3,4} - y_{3,4}\right)^2 + \left(x_{4,1} - y_{4,1}\right)^2 + \left(x_{4,2} - y_{4,2}\right)^2 + \left(x_{4,3} - y_{4,3}\right)^2 + \left(x_{4,4} - y_{4,4}\right)^2 \right] = \frac{1}{16} * 16 * (-2)^2 = 4$$

$$PSNE = 10 \log_{10} \frac{15^2}{MSE} = 10 \log_{10} \frac{15^2}{4} = 17.5$$

Srednja kvadratna pogreška za slike A i C

$$MSE = \frac{1}{16} * (-8)^2 = 4$$

$$PSNE = 10 \log_{10} \frac{15^2}{MSE} = 10 \log_{10} \frac{15^2}{4} = 17.5$$

Usporediti SSIM i MSE za sliku B i sliku C.