Homework 8

R13525009 羅筠笙

1. Gaussian noise with amplitude = 10

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| Gaussian noise with amplitude = 10, SNR = 13.580065841236912 | |
| box\_3x3, SNR = 17.743100 | box\_5x5, SNR = 14.860437 |
| median\_3x3, SNR = 17.645850 | median\_5x5, SNR = 15.991138 |
| open-then-closing, SNR = 13.274827254733259 | closing-then-opening, SNR = 13.605771534352407 |

1. Gaussian noise with amplitude = 30

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| Gaussian noise with amplitude = 30, SNR = 4.178302802186491 | |
| box\_3x3, SNR = 12.635126 | box\_5x5, SNR = 13.326015 |
| median\_3x3, SNR = 11.074888 | median\_5x5, SNR = 12.901898 |
| open-then-closing, SNR = 11.151455737103365 | closing-then-opening, SNR = 11.22670064082471 |

1. Salt-and-pepper noise with probability = 0.1

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| salt-and-pepper with probability = 0.1, SNR = -2.0725194940068317. | |
| box\_3x3, SNR = 6.366345 | box\_5x5, SNR = 8.563777 |
| median\_3x3, SNR = 15.185409 | median\_5x5, SNR = 15.717960 |
| open-then-closing, SNR =  -2.0810896049301117 | closing-then-opening, SNR =  -2.4250512224028227 |

1. Salt-and-pepper noise with probability = 0.05

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| salt-and-pepper with probability = 0.05, SNR = 0.8742863281653825. | |
| box\_3x3, SNR = 9.359682 | box\_5x5, SNR = 11.065532 |
| median\_3x3, SNR = 19.150658 | median\_5x5, SNR = 16.357844 |
| opening-then-closing, SNR = 5.430705168540689 | closing-then-opening, SNR = 5.375692093039537 |