Computer Vision Homework #8

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1. **Gaussian noise with amplitude of 10**
    - Original

    - Filtered

3x3 Box filter	5x5 Box filter
	
$SNR = 17.738$	$SNR = 14.866$

3x3 Median filter	5x5 Median filter
	
$SNR = 17.683$	$SNR = 16.006$

Opening then closing	Closing then opening
	
$SNR = 13.242$	$SNR = 13.567$

2. **Gaussian noise with amplitude of 30**
    - Original

- Filtered

3x3 Box filter	5x5 Box filter
	
$SNR = 9.789$	$SNR = 10.809$

3x3 Median filter	5x5 Median filter
	
$SNR = 10.721$	$SNR = 12.438$

Opening then closing	Closing then opening
	
$SNR = 7.676$	$SNR = 8.005$

3. **Salt-and-pepper noise with probability 0.05**
    - Original

- Filtered

3x3 Box filter	5x5 Box filter
	
$SNR = 9.453$	$SNR = 11.149$

3x3 Median filter	5x5 Median filter
	
$SNR = 19.028$	$SNR = 16.404$

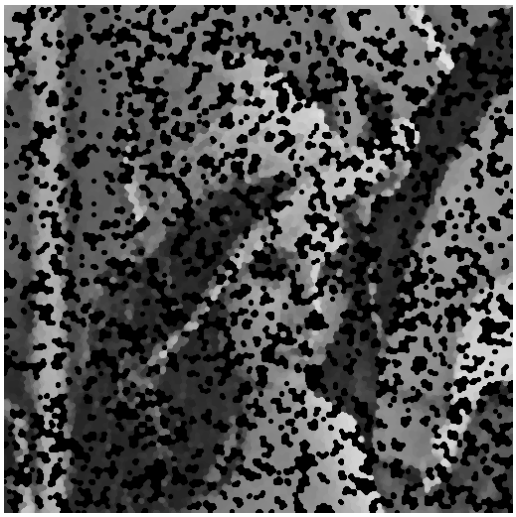
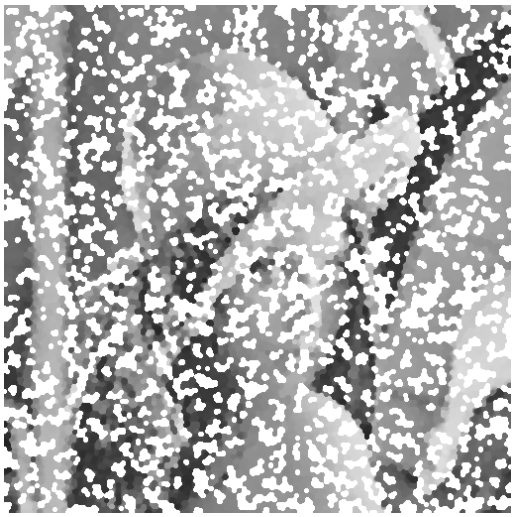
Opening then closing	Closing then opening
	
$SNR = 5.988$	$SNR = 5.438$

4. **Salt-and-pepper noise with probability 0.1**
    - Original

- Filtered

3x3 Box filter	5x5 Box filter
	
$SNR = 6.288$	$SNR = 8.457$

3x3 Median filter	5x5 Median filter
	
$SNR = 14.787$	$SNR = 15.721$

Opening then closing	Closing then opening
	
$SNR = -2.344$	$SNR = -2.541$