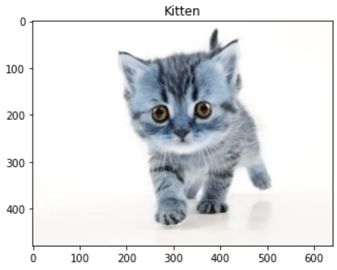
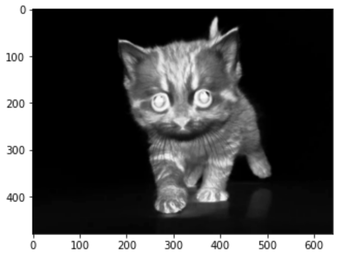
In [1]:
```
#importing libraries
import cv2
import numpy as np
from matplotlib import pyplot as plt
img=cv2.imread("kitten.gif.jpg")
#show image
plt.imshow(img)
plt.title("Kitten")
plt.axis("on")
plt.show()
```

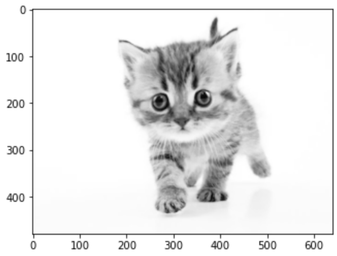


In [2]:
```
#convert grayscale
gray_image=cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)
plt.imshow(gray_image,'Greys')
```

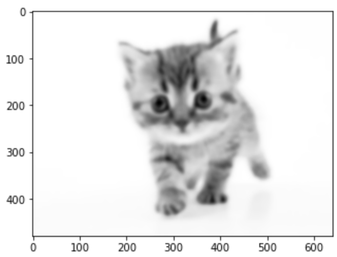
Out[2]:
```
<matplotlib.image.AxesImage at 0x263f7fc8430>
```



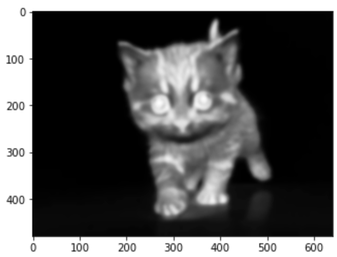
In [3]:
```
#Inverting the grayscale image
inverted_gray_image=255-gray_image
plt.imshow(inverted_gray_image,'Greys');
```



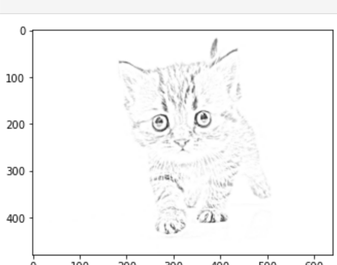
In [8]:
```
#Blurring the image using Gaussian function
blurred_image=cv2.GaussianBlur(inverted_gray_image,(21,21),sigmaX=0,sigmaY=0)
plt.imshow(blurred_image,'Greys');
```



In [5]:
```
#Inverting blurred image
inverted_blurred_image=255-blurred_image
plt.imshow(inverted_blurred_image,'Greys');
```



In [6]:
```
#Pencil sketch
sketch_image=cv2.divide(gray_image,inverted_blurred_image,scale=256.0)
pencil_sketch_image=cv2.cvtColor(sketch_image,cv2.COLOR_BGR2RGB)
plt.imshow(pencil_sketch_image,'Greys_r');
```



In [ ]: