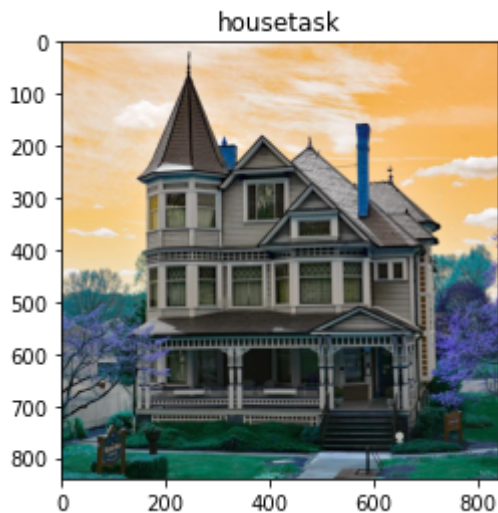
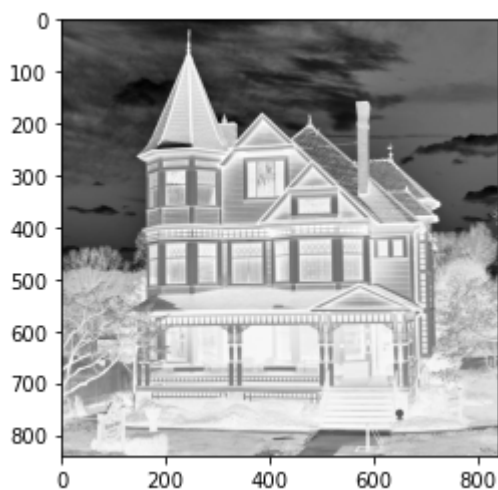


```
In [3]: # importing libraries
import cv2
import numpy as np
from matplotlib import pyplot as plt
img=cv2.imread("housetask.jpg")
#show image
plt.imshow(img)
plt.title("housetask")
plt.axis("on")
plt.show()
```

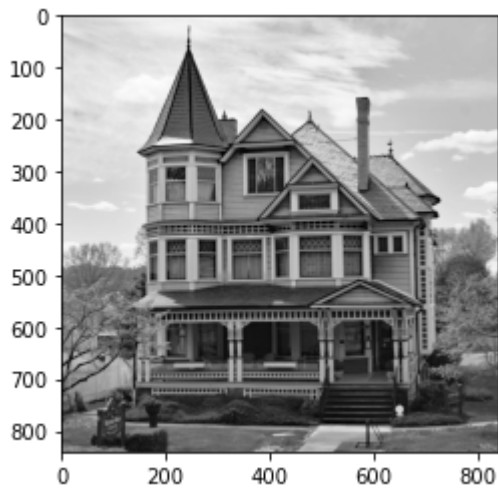


```
In [12]: #convert grayscale
gray_image=cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)
plt.imshow(gray_image,'Greys')
```

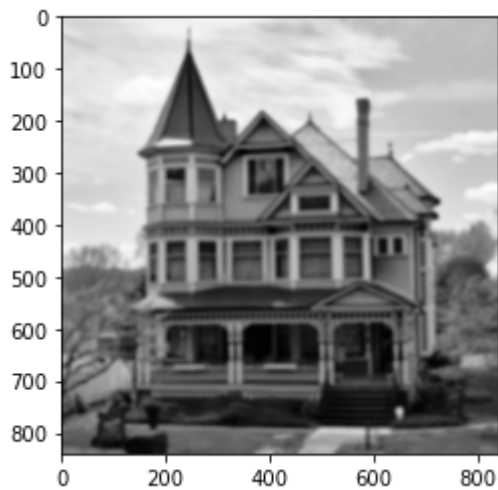
Out[12]: <matplotlib.image.AxesImage at 0x1ddb957148>



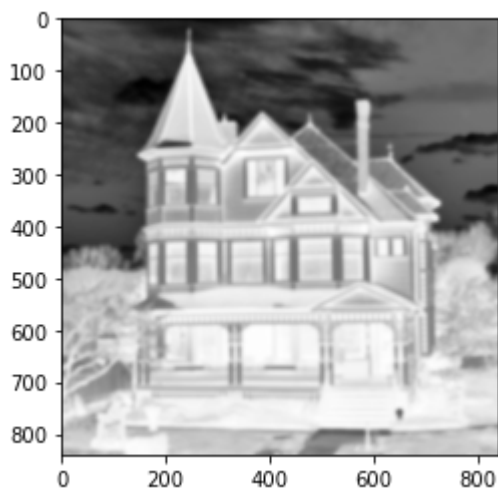
```
In [13]: #Inverting the grayscale image
inverted_gray_image=255-gray_image
plt.imshow(inverted_gray_image,'Greys');
```



```
In [17]: # blurring the image using Gaussian function
         blurred_image=cv2.GaussianBlur(inverted_gray_image,(21,21),sigmaX=0,sigmaY=0)
         plt.imshow(blurred_image,'Greys');
```

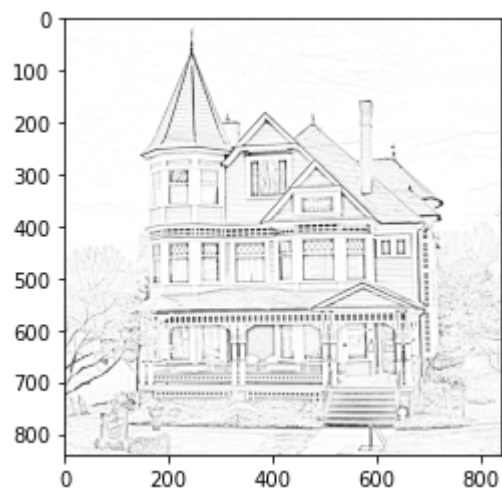


```
In [18]: # inverting blurred image
         inverted_blurred_image=255-blurred_image
         plt.imshow(inverted_blurred_image,'Greys');
```



```
In [34]: #pencil sketch
         sketch_image=cv2.divide(gray_image,inverted_blurred_image,scale=256.0)
         img = cv2.imread('housetask.jpg')
```

```
gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)  
plt.imshow(sketch_image, 'Greys_r');
```



In []: