```
I_orig = imread("cat_driving.jpg");
I = rgb2gray(I_orig);
disp("Chosen Image:")
```

Chosen Image:

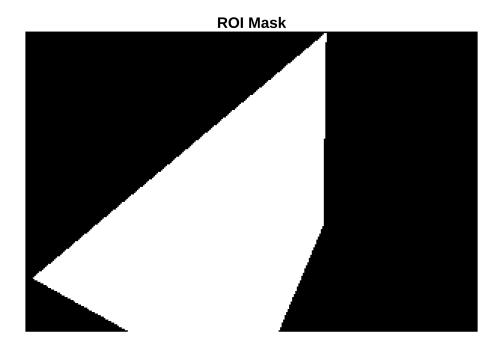
```
imshow(I)
title("Original")
```



```
disp("Question 1:")
```

Question 1:

```
f_lap = fspecial('laplacian');
f_pre = fspecial('prewitt');
f_gaus = fspecial('gaussian',[9 9], 2);
f_avg = fspecial('average',[9 9]);
xi = [164 1 129 222 211];
yi = [5 200 198 159 90];
roi = roipoly(I, yi, xi);
imshow(roi)
title("ROI Mask")
```



```
J_lap = roifilt2(f_lap,I,roi);
imshow(J_lap)
title("laplacian Mask")
```



```
J_gaus= roifilt2(f_gaus,I,roi);
imshow(J_gaus)
title("gaussian Mask")
```





```
J_avg= roifilt2(f_avg,I,roi);
imshow(J_avg)
title("average Mask")
```





```
J_pre= roifilt2(f_pre,I,roi);
imshow(J_pre)
title("prewitt Mask")
```

