Identify which intensity transformation was used on liftingbody.png to create each of the four results below. Write a script to reproduce the results using the intensity transformation functions.

CODE:

```
Function intensityTransformations()

    % Read the original image

    originalImage = imread('house.jpeg');


    % Ensure the image is grayscale

    If ndims(originalImage) == 3

        originalImage = rgb2gray(originalImage);

    end


    % Apply transformations

    % 1. Darkened image (Result 1)

    Result1 = imadjust(originalImage, [], [], 0.5); % Gamma correction with gamma < 1


    % 2. Brightened image (Result 2)

    Result2 = imadjust(originalImage, [], [], 1.5); % Gamma correction with gamma > 1


    % 3. High contrast image (Result 3)

    Result3 = histeq(originalImage); % Histogram equalization


    % 4. Low contrast image (Result 4)

    Result4 = imadjust(originalImage, [0.3 0.7], [0.4 0.6]); % Adjust intensity range


    % Display results
```

```
Figure;

Subplot(2, 3, 1);

Imshow(originalImage);

Title('Original Image');


Subplot(2, 3, 2);

Imshow(result1);

Title('Result 1: Darkened');


Subplot(2, 3, 3);

Imshow(result2);

Title('Result 2: Brightened');


Subplot(2, 3, 4);

Imshow(result3);

Title('Result 3: High Contrast');


Subplot(2, 3, 5);

Imshow(result4);

Title('Result 4: Low Contrast');
End
```