Name:	Date:	Period:

Lab11: Sobel Edge Detection

- Attach a code printout.
- Attach a PPM image with original pixels in grayscale and edge pixels in red.
  - Find an (appropriate) image, convert to PPM, smaller is better.
  - Input PPM file (plain text), convert RGB to grayscale intensity, output PGM.
  - Input PGM file, smooth (weighted average), output another PGM file.
  - Sobel edge detection, try different threshold values for G. Ignore boundary pixels.
- convert -compress None yourfile.jpg yourfile.ppm
- INTENSITY = 0.30*RED + 0.59*GREEN + 0.11*BLUE
- Gaussian smoothing mask:

1	2	1
2	4	2
1	2	1

- Horizontal gradient G_x mask:

-1	0	1
-2	0	2
-1	0	1

- Vertical gradient G_y mask:

1	2	1
0	0	0
-1	-2	-1

- $G = |G_x| + |G_y|$

Official Use Only

Header:	Name	Correct Date	Program Description
Style:	Comments	Variable Names	Modular
Data Structures:	Obvious	General	Lean
Algorithm:	Clear	Correct	Efficient
Scoring:	Raw _____	Late _____	Total _____