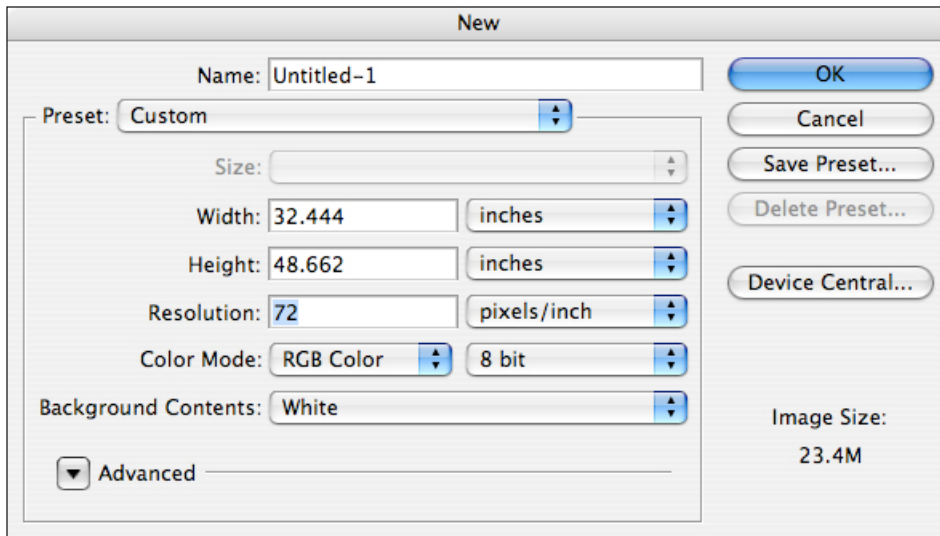


4.4 AVOIDING PIXELATION

DIRECTIONS: Follow the appropriate steps using Adobe Photoshop, or a similar image-editing program, to make the calculations below.



1 Create a new file in Adobe Photoshop that is 32.444 inches by 48.662 at 72 pixels/inch and in RGB mode. This simulates a photo taken with a digital camera. Note that this file is 23.4 megabytes.

Maximum size

- Online _____" (W) x _____ (H) at 72PPI
- Newspaper _____" (W) x _____ (H) at 170 PPI
- Magazine _____" (W) x _____ (H) @ 300PPI

2 What is the largest size this specific photo can be reproduced in the publications indicated without a loss of quality?

Optimum size

- Online _____" (W) x 3.5" (H) at 72PPI = _____ MB
- Newspaper _____" (W) x 3.5" (H) at 170 PPI = _____ MB
- Magazine _____" (W) x 3.5" (H) @ 300PPI = _____ MB

3 Your designer indicates that the photo will actually be reproduced only 3.5 inches tall in the newspaper. Using Photoshop's Image Size dialog box, calculate the final width of the image and then the final image size in megabytes.

BONUS INFORMATION

- To calculate the actual resolution in pixels per inch required by your publication, ask your press operators what "line screen" they use.
- Newspapers typically use a line screen of somewhere between 65 lines per inch and 85 LPI.
- Magazines use 150 LPI.
- To calculate the required resolution, multiply the line screen by two.

Newspapers • 65-85 LPI x 2 = 130-170 PPI
 Magazines • 150 LPI x 2 = 300 PPI