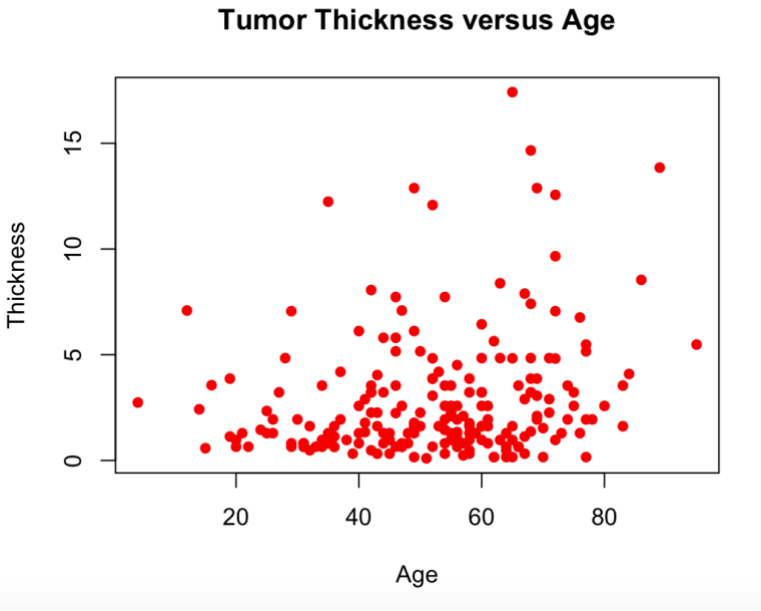
The graph that I chose (Originally looks):



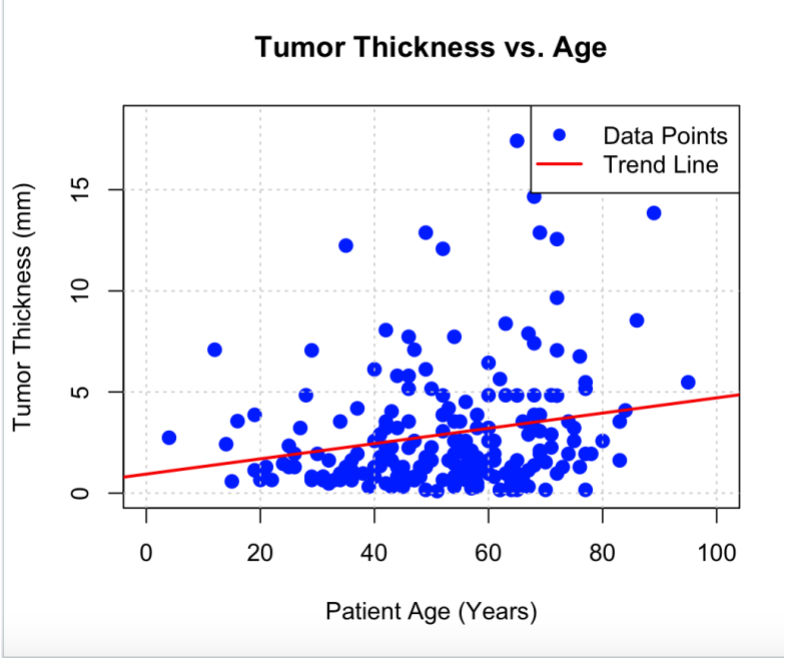
Code for this graph:

```
#-----------------------------------------------------------------------
---
# Scatterplots are useful for displaying the relationship between two
numerical
# variables.  Form a scatterplot of tumor thickness versus age.

plot(tumor$age, tumor$thickness)
plot(tumor$age, tumor$thickness, main = "Tumor Thickness versus Age", col =
"red",
     cex = 1.0, pch = 16,  xlab = "Age", ylab = "Thickness")

#-----------------------------------------------------------------------
```

After Changed, what graph looks like:



Code for this new graph:

```
# new plot graph for the Tumor Thickness vs Age.
# See the changes of code below:
plot(tumor$age, tumor$thickness,
     main = "Tumor Thickness vs. Age",
     col = "blue",
     pch = 19,
     cex = 1.2,
     xlab = "Patient Age (Years)",
     ylab = "Tumor Thickness (mm)",
     xlim = c(0, 100),
     ylim = c(0, max(tumor$thickness) + 1))

grid()  # Adds a background grid for better readability
abline(lm(tumor$thickness ~ tumor$age), col = "red", lwd = 2)  # Adds a
regression line
legend("topright", legend = c("Data Points", "Trend Line"),
       col = c("blue", "red"), pch = c(19, NA), lty = c(NA, 1), lwd = c(NA,
2))
```

Explanation:

Why I Chose This Graph:

I chose the scatterplot of tumor thickness versus age because it is crucial in understanding the potential relationship between a patient's age and the severity of their melanoma (as indicated by

tumor thickness). Visualizing this relationship can help identify trends that might be valuable for medical research or treatment planning.

How and Why I Made These Changes:

1. Color and Point Size: The original graph used a default color and smaller points, making it harder to distinguish individual data points. By changing the color to blue and increasing the point size, I aimed to make the graph clearer and more visually distinct.

2. Axis Limits: Setting specific limits on the x and y axes ensures that the data is well-framed within the plot, avoiding cramped or overly stretched displays that can obscure trends.

3. Grid: I think the addition of a grid will help in accurately reading the data points' positions, making the graph more user-friendly.

4. Trend Line: Also, the linear regression line highlights any potential correlation between age and tumor thickness, offering an immediate visual cue to the relationship. This is particularly useful for viewers looking to understand overall trends rather than just individual data points.

5. Legend: Including a legend makes it easier for viewers to understand the elements of the graph, particularly distinguishing between the actual data points and the trend line.