Problem 3

Yufei Yin

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Question 3a, (5 points)

Make a plot of 2^x and x^2 and upload the .pdf. Include a legend so we know which is which. Both lines should have different colours and line types.
(Hint 1: R uses the notation exp(x) instead of 'e^x'.)
(Hint 2: you need to make sure that your plot is clear and that both things on the plot are visible so choose a reasonable range of values.)

Question 3b, (1 point)

provide the code used to make this plot.

```r
x = seq(from = -10, to = 10, length = 30)
y = 2^x
plot(x,y,
     main = "plot of 2^x and x^2",
     xlim = c(-11,11),
     ylim = c(0,1100),
     col = 2,
     lty = 1,
     type = 'o')
points(x,x^2, col = 3)
lines(-10:10, c(-10:10)^2, col = 3, lty = 3)
legend(x="topleft", col = c(2,3), lty = c(1,3), pch = c(1,1),
       c("2^x","x^2"))
```

plot of 2^x and x^2