Programming
Homework 3
Due Date: 18:00 December 24, 2019

For the following questions, please use .rmd file and click knit to generate a html file a to show your results.

1. Write **Rmarkdown codes** to provide the expression of probability density function (pdf) or probability mass function (pmf) of the following distribution. (Hint: use $...$ or $$...$$).
   (a) Binomial distribution with parameters n and p with $x = 0, \ldots, n$.
   (b) Gamma distribution with shape parameter α and the rate parameter λ with $x>0$.
   (c) Normal distribution with parameters μ and σ^2 with $-\infty < x < \infty$.
2. Draw the pdf (or pmf) of each distribution in Question 1. Write codes and use all control argument in `plot(…)` and `par(…)` to show the following plots.
   ☑ Note 1: when using Rmarkdown, the setting for the figure is

```
```{r, fig.width = 10, fig.height = 8}
plot(…)
```
```

   ☑ Note 2: the expression of mathematical symbol for the title and the legend is generated by `expression(...)`. Take gamma for example:

```
title(expression(paste("Gamma(", alpha , ", ", lambda, ") with ", lambda,    " = 3")))
```