Libraries to Import

library(tidyverse)	library(broom)
library(mosaic)	library(dplyr)

Block 2 Quiz 1

mutually exclusive	two cannot be concurrent
independent	no relevance/influence between 2 factors
complement	opposite
rbinom(# of trials, # of attempts within trial, success rate) mean(results > amt)	returns probability of success that the amt is exceeded
mean(rbinom(simulatedTrials, #ofAttempts, successRate))	
favstats(results)	finding 3rd quartile of probability
quantile(results, 0.75)	
qbinom(0.75, size = #ofAttempts, prob = successRate)	
choose(n, k)	n choose k. different ways for result

Block 1 GR

Categorical	non-number
Numerical	can be categorized by number
continuous	non-whole #
discrete	whole #
stratified sampling	some of all groups

Block 1 GR (cont)

cluster sampling	one group, all variables
simple random sampling	random selection across all groups
observational study	not experimenting
retrospective study	data collected after the fact
prospective study	data collected during event
skew	tail is what skew it is
favstats(colforeachof~thiscol, data = dataSet)	returns min, max, SD, mean, median
explanatory variable	x
response variable	y
independence has no trend	
tally(~col1+col2, data = dataSet, format = "percent/decimal")	% of the dataset that applies to both
tally((colforeachof~thiscol, data = dataSet, format = "percent", margin = TRUE)	of col1, how many also in col2?
dataSet%>% gf_props(Survived, fill = Pclass, position = "fill")%>% gf_labs(title = "", subtitle = "", x = "", y = "")%>% gf_theme(theme_bw())	

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Block 2 Quiz 2

pnorm(value, mean mu, stdev)	returns CDF of normal distribution
Probability of randomly selecting within a range	upper bound pnorm - lower bound pnorm
qnorm(percentile value, mu, stdev)	returns percentile of dataset
integrate(function(x)-{functionInfo}, lowerBound, upperBound)$value	Integrate
adaptIntegrate(function, lowerLimit = c(lowerBound, lowerBoundY), upperLimit = c(upperBoundX, upperBoundY))$integral	integrate with 2 variables
Cov(X,Y) = E(XY) - E(X)E(Y)	covariance
Cov(X,Y) = 0	Independence
CDF	cumulative density function. probability that a random variable will take on a value <= given value. integral of PDF
PDF	proability density function. probability that a random variable will take on a given value. derivative of CDF.

Block 2 Quiz 2 (cont)

rexp(# of trials, mu) + 1 /// mean(results < givenNumber)	exponential distribution
pexp(xValueNumber, rate = mu)	exponential distribution

Block 3

lm()	im not done with this!
bootstrapping	