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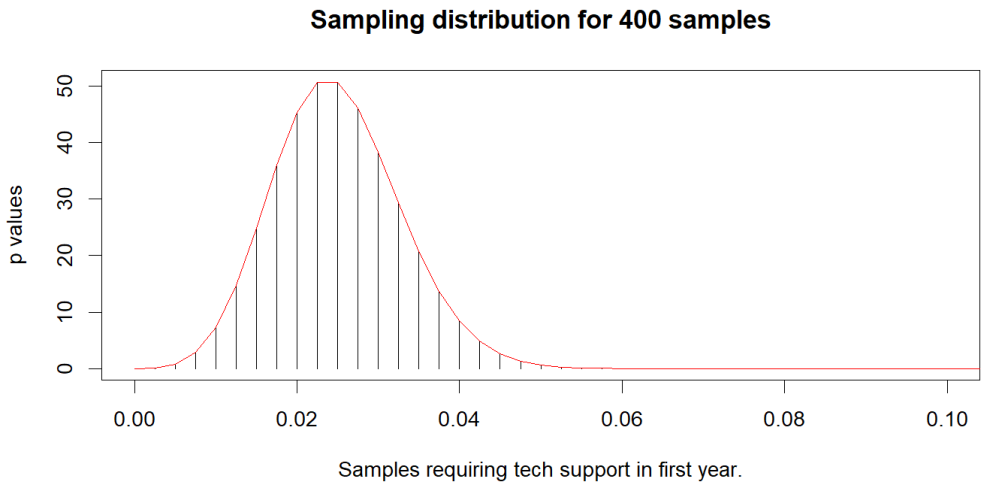
Lab Challenge 06

Part 1:

a.



b. $pbinom(3, n, p) - pbinom(2, n, p) = 0.007135381$

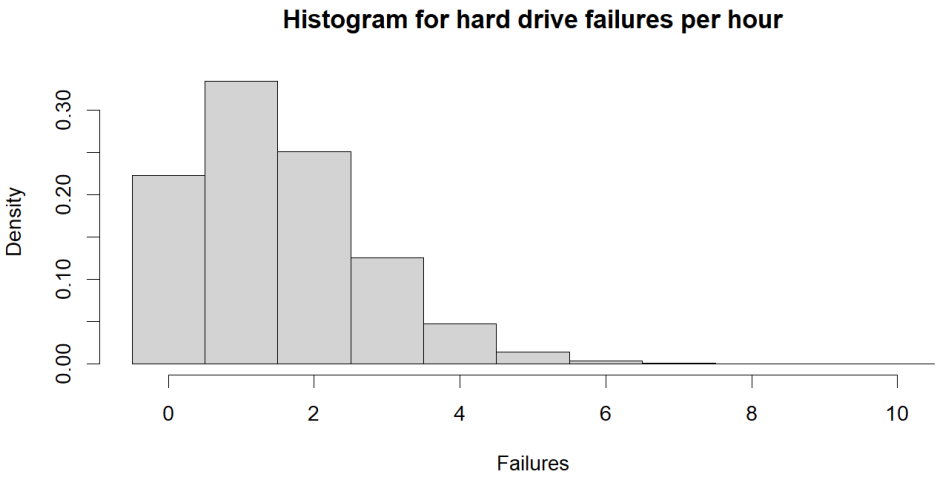
c.

i. $pnorm(0.03, mu.x.vals, sig.x.vals) - pnorm(0.02, mu.x.vals, sig.x.vals) = 0.1791528$

ii. $pnorm(0.035, mu.x.vals, sig.x.vals) - pnorm(0.025, mu.x.vals, sig.x.vals) = 0.1746935$

Part 2:

a.



b. $mu.X.fail = mean(data\$X.fail) = 1.499716$

$sig.X.fail = sd(data\$X.fail) = 1.223023$

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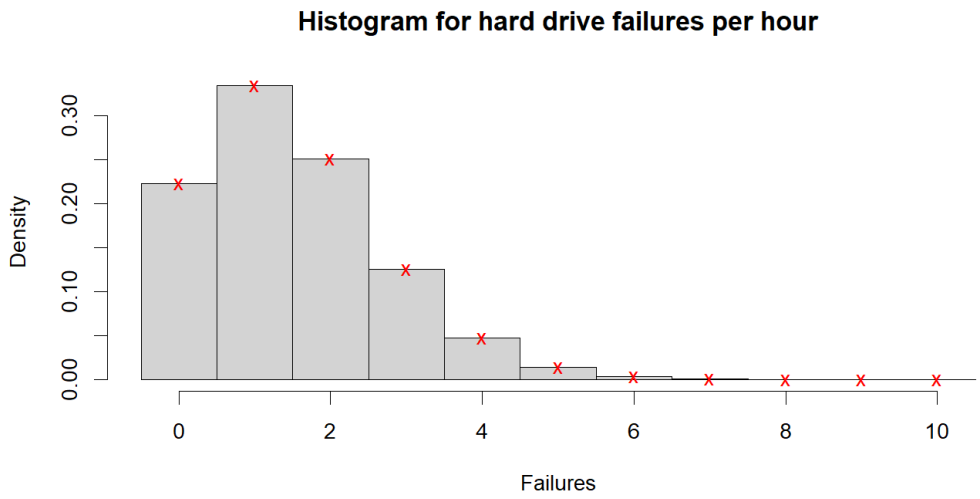
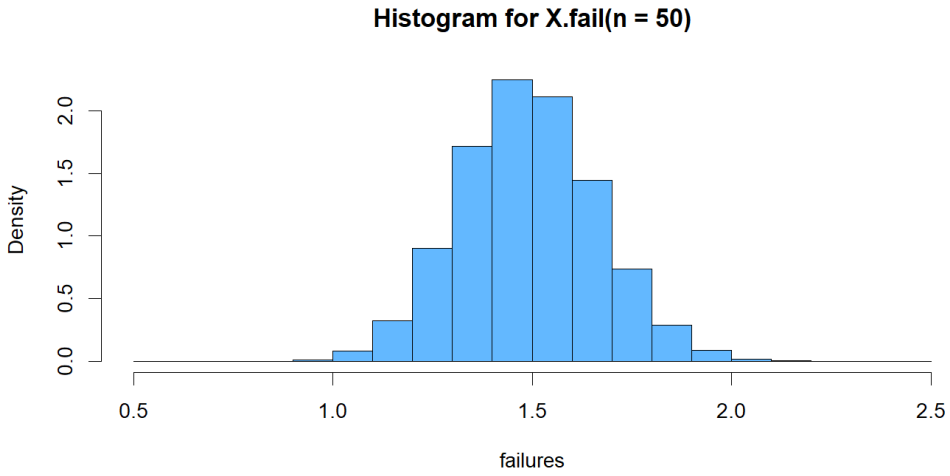
c.



Part 3:

a.



b. $m.xbar = mean(xbar) = 1.50064$
$sd.xbar = sd(xbar) = 0.1728817$

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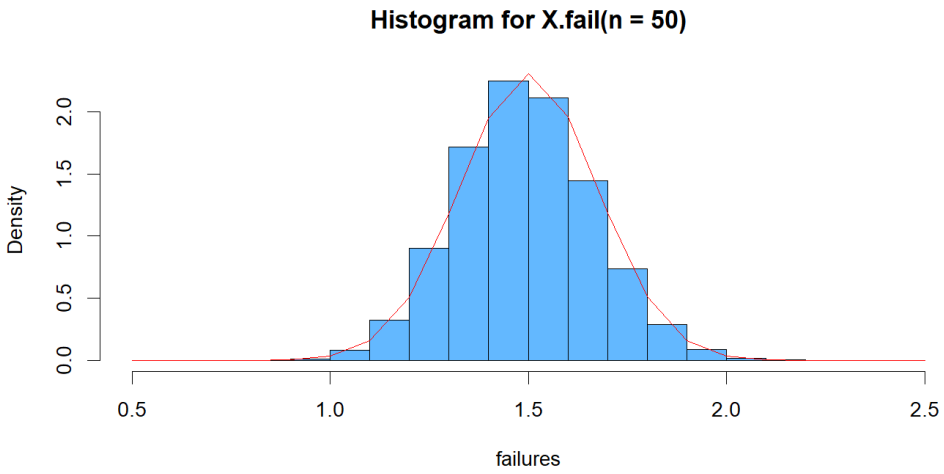
c.



d. $lowerBound = m.xbar - (2 * sd.xbar) = 1.154877$
$upperBound = m.xbar + (2 * sd.xbar) = 1.846404$