

C1

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5.1.1

- a. n, z^*
- b. $\text{phat} = 0.4$ $\text{SEp} = 0.077$ $z^* = 0.99$ $\text{C99\%} = 1.996, (0.2004, 0.5996)$

5.1.2

- a. $\text{ME} = 1.996$
- b. $n > 637$
- c. 638

5.1.3 SKIP

5.1.4

- a. $z^* = 1.96$
- b. $n > 2401$
- c. 2402
- d.

```
n=2402
p=runif(1,0.6,0.99)
samp_zombie=sample(c("CURED", "nope"), n, replace=TRUE, prob=c(p, 1-p))
length(which(samp_zombie=="CURED"))
```

```
## [1] 1718
```

- e. $\text{phat} = 0.598$ $\text{SEp} = 0.01$ $\text{C95\%} = 0.0196$
- f. $n > 4144$

```
n=4145
p=runif(1,0.6,0.99)
samp_zombie=sample(c("CURED", "nope"), n, replace=TRUE, prob=c(p, 1-p))
length(which(samp_zombie=="CURED"))
```

```
## [1] 4038
```

$\text{phat} = 0.604$ $\text{SEp} = 7.596 * 10^{-3}$ $\text{C99\%} = 0.0196$