

# Problem\_4

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## Confidence interval 3

```
alpha = 0.1
instance <- function(n) {
  data = rpois(n, 1)
  m = mean(data)
  z = qnorm(1-alpha/2)
  return(m-z*sqrt(m/n) <= 1 & 1 <= m+z*sqrt(m/n))
}
sum(replicate(10000, instance(30)))/10000
```

```
## [1] 0.8866
```

```
sum(replicate(10000, instance(100)))/10000
```

```
## [1] 0.8995
```

fraction is (naturally) about 90 %.