

1. Write a `pois.prob()` function that computes $P(X = x)$, $P(X \neq x)$, $P(X < x)$, $P(X \leq x)$, $P(X > x)$, and $P(X \geq x)$. Enable the user to specify the rate parameter λ .

```
pois.prob <- function(x, size, prob, type="<="){  
  # Use dpois and ppois to conditionally return the correct probability  
}
```

2. Write a `beta.prob()` function that computes $P(X = x)$, $P(X \neq x)$, $P(X < x)$, $P(X \leq x)$, $P(X > x)$, and $P(X \geq x)$ for a beta distribution. Enable the user to specify the shape parameters α and β .

```
beta.prob <- function(x, size, prob, type="<="){  
  # Use dbeta and pbeta to conditionally return the correct probability  
}
```