Here are some simple R commands for doing probability computations. We'll proceed by distribution.

#First we'll look at the BI distribution. Suppose X ~ BI (10, .7). To find P(X = 5) = .1029 just do ...

```
dbinom(5, 10, .7);
```

Suppose X ~ BI (10, .7). To find P(X < 6) = .1503 just do ...

```
pbinom(5, 10, .7);
```

Suppose X ~ BI (10, .7). To find P(X > 5) = .8497 just do ...

```
1 – pbinom(5, 10, .7);
```

#Next we'll look at the Normal distribution. Since this and others are continuous, we need not worry about the ddistn commands. Suppose X ~ N(13, 2). To find P(X < 3) = .000000287 just do …

```
pnorm(3, 13, 2);
```

#Suppose X ~ N(13, 2). To find P(X > 10) = .9332 just do …

```
1 - pnorm(10, 13, 2);
```

#Suppose X ~ N(13, 2). To find the 95th%ile, $X_{.95}$ = 16.29 just do …

```
qnorm(.95, 13, 2);
```

#Next we'll look at the Chi Square distribution. Since this and others are continuous, we need not worry about the ddistn commands. Suppose W ~ Chisq (3). To find P(W < 3) = .6084 just do …

```
pchisq(3, 3);
```

Suppose W ~ Chisq (3). To find P(W > 3) = .3916 just do …

```
1 - pchisq(3, 3);
```

#Suppose W ~ Chisq (3). To find the 95th%ile, $W_{.95}$ = 7.815 just do …

```
qchisq(.95, 3);
```

#Next we'll look at the t distribution. Since this and others are continuous, we need not worry about the ddistn commands. Suppose t ~ t(13). To find P(t < 2) = .9666 just do …

```
pt(2, 13);
```

#Suppose t ~ t(13). To find P(X > 2) = .0334 just do …

```
1 - pt(2, 13);
```

#Suppose t ~ t(13). To find the 95th%ile, $t_{.95}$ = 1.77 just do …

```
qt(.95, 13);
```

#Next we'll look at the F distribution. Since this and others are continuous, we need not worry about the ddistn commands. Suppose F ~ F(2, 13). To find P(F < 2) = .8251 just do …

```
pf(2, 2, 13);
```

Suppose F ~ F(2, 13). To find P(F > 2) = .1749 just do …

```
1 - pf(2, 13);
```

#Suppose F ~ F(2, 13). To find the 95th%ile, $F_{.95}$ = 23.383 just do …

```
qnorm(.95, 2, 13);
```