Command	Explanation	Notes
`pnorm(x)`	$\Pr(Z \leq x)$	
`pt(x,n-1)`	$\Pr(T_{n-1} \leq x)$	
`pchisq(x,n-1)`	$\Pr\left(\chi^2_{n-1} \leq x\right)$	
`pf(x,v1,v2)`	$\Pr\left(F_{v_1,v_2} \leq x\right)$	
`qnorm(p)`	gives x satisfying $\Pr(Z \leq x) = p$	
`qt(p,n-1)`	gives x satisfying $\Pr(T_{n-1} \leq x) = p$	
`qchisq(p,n-1)`	gives x satisfying $\Pr\left(\chi^2_{n-1} \leq x\right) = p$	
`qf(p,v1,v2)`	gives x satisfying $\Pr\left(F_{v_1,v_2} \leq x\right) = p$	
`t.test()`	uh, it performs a t-test	many options
`var.test()`	performs a two-sample variance test	many options
`prop.test()`	performs a test of proportions	

Use `p()` functions to find p-values and `q()` functions to find critical values.

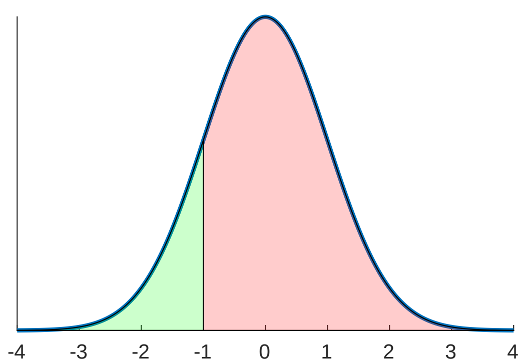

Figure 1: The green area is given in R by the command `pt(-1, n-1)`; the red area with either `1 - pt(-1, n-1)` or with `pt(-1, n-1, lower.tail=FALSE)`.

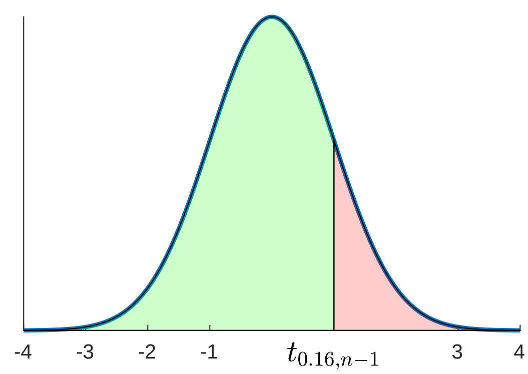

Figure 2: The number $t_{0.16,n-1}$ is such that 84% of the curve lies beneath it; and 16% lies above it. Find it with `qt(0.84, n-1)` or `qt(0.16, n-1, lower.tail=FALSE)`.

```
t.test(x, mu=3, alternative="greater", conf.level=.99)
```

Tests $H_0 : \mu \leq 3$ against $H_1 : \mu > 3$ at 99 percent confidence (i.e. 1 percent significance).

```
t.test(A, B, var.equal=TRUE)
```

Tests whether the means of group A and group B are equal at 5 percent significance, assuming the two groups have the same variance.

```
var.test(A, B, alternative="greater")
```

Tests whether group A has larger variance than group B at 5 percent significance.