HW 11.6

Adam Kaderbhai

Problem 1

Compute P(T <−1.1) in t(22).

```
pt(-1.1, 22)
```

```
[1] 0.1416118
```

Problem 2

Compute P(−1.5 <T <.4) in t(5).

```
pt(0.4, 5) - pt(-1.5, 5)
```

```
[1] 0.5502116
```

Problem 3

Find the number such that P(T > τ) =.05 in t(80). Note that this a right-tailed probability, not a left-tailed one.

```
qt(1-0.05, 80)
```

```
[1] 1.664125
```

Problem 4

Find the number such that 95% of the area under t(6) lies between $-\tau$ and τ.

```
qt((1-0.95)/2, 6)
```

```
[1] -2.446912
```

```
qt(0.025, 6)
```

```
[1] -2.446912
```

```
qt(0.975, 6)
```

```
[1] 2.446912
```