E2.1

For the smallest possible variance, you need to take all the values to be equal. For instance, if all 6 values are 3, then

```
mydat = rep(3, 6)
var(~mydat)
```

```
[1] 0
```

The variance is predictably 0. By definition, it can be no smaller.

This variance offers the opportunity (it is in the instructions, in fact) of doing the computation by hand.

E2.2

For the largest possible variance, you need to split the values evenly on opposite extremes.

```
mydat = c(rep(0, 3), rep(10, 3))
var(~mydat)
```

```
[1] 30
```

The variance is 30, the largest it *can* be.