

PS: One Sample Z test for TAs

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R practice.

```
library(BSDA)
```

```
## Warning: package 'BSDA' was built under R version 4.3.2
```

```
## Loading required package: lattice
```

```
##
```

```
## Attaching package: 'BSDA'
```

```
## The following object is masked from 'package:datasets':
```

```
##
```

```
##      Orange
```

Load the water pollution data into R.

```
##           region  value
## 1      North West 1782.4
## 2      North East 1904.2
## 3      Midlands 3070.1
## 4      Anglian 1773.2
## 5      Thames 1528.3
## 6      Southern 1317.0
## 7      South West 2278.5
## 8      EA Wales 1585.9
## 9      Scotland 2101.7
## 10 Northern Ireland 1577.7
```

```
z.test(x= df_water$value,
alternative = "greater",
mu = 1644,
sigma.x = 497)
```

```
##
```

```
## One-sample z-Test
```

```
##
```

```
## data:  df_water$value
```

```
## z = 1.5773, p-value = 0.05736
## alternative hypothesis: true mean is greater than 1644
## 95 percent confidence interval:
## 1633.386      NA
## sample estimates:
## mean of x
## 1891.9
```