

From Longer and Wider, We Stand on Guard for
Thee

Ken Butler Department of Computer and Mathematical Sciences
UTSC (Scarborough)

packages

```
library(tidyverse)
```

```
## -- Attaching packages -----
```

```
## v ggplot2 3.2.1      v purrr  0.3.2
```

```
## v tibble  2.1.3      v dplyr  0.8.3
```

```
## v tidyr   1.0.0      v stringr 1.4.0
```

```
## v readr   1.3.1      v forcats 0.4.0
```

```
## -- Conflicts -----
```

```
## x dplyr::filter() masks stats::filter()
```

```
## x dplyr::lag()    masks stats::lag()
```

Pig feed

20 pigs are randomly assigned to one of four pig feeds, and the weight gain of each pig is measured

pig	feed1	feed2	feed3	feed4
1	57.0	67.7	92.1	84.2
2	65.0	74.0	90.2	83.1
3	58.6	66.3	96.5	85.7
4	60.8	68.7	92.6	87.9
5	61.7	69.8	99.1	90.3

this one:

Species	Disease present		Disease absent	
	Location X	Location Y	Location X	Location Y
A	44	12	38	10
B	28	22	20	18

one where I use .value

summarize with list, eg the exam one reformat the data so I have to process it first