## Working with Messy Data in OpenRefine – Formula Cheat Sheet

```
Household spending data GREL examples
value.toLowercase()
value.toUppercase()
Citizen Science data examples
cells.user_login.value + " (" + value + ")"
Regular Expression examples
05 | 06
. . . . - . . - . .
(....)-(...)-(...)
\/
\/.*\/
\/(.*) (.*), (.*)\/
\/(.*) (.*),? (.*)\/
\/(.*) ([0-9]*),? (.*)\/
value.partition(/....-../)[1]
value.partition(/(....-...)|(\/(.*)([0-9]*),?(.*)\/)/)
value.partition(/(....-...)|((\w^*)([0-9]^*),?(\w^*))/[1]
City of Toronto 311 call data examples
https://secure.toronto.ca/webwizard/ws/requests.json?service code=CSROSC-
14&jurisdiction_id=toronto.ca
value.toString('M/d/y')
value.datePart("month")
value.toDate(false, 'M').toString('MMMM')
```