**Prometheus Query Language (PromQL):**

**OPERATORS**

**Arithmetic operators:**

* +: addition
* -: subtraction
* \*: multiplication
* /: division
* %: modulo
* ^: power of

**Comparison operators:**

* ==: equal to
* !=: not equal to
* >: greater than
* <: less than
* >=: greater than or equal to
* <=: less than or equal to

**Logical operators:**

* and: logical and
* or: logical or
* unless: logical unless (equivalent to !(a and b))

**Vector matching operators:**

* =~: regular expression match
* !~: regular expression non-match
* on: label equality

**Aggregation Operators:**

* sum (calculate sum over dimensions)
* min (select minimum over dimensions)
* max (select maximum over dimensions)
* avg (calculate the average over dimensions)
* group (all values in the resulting vector are 1)
* stddev (calculate population standard deviation over dimensions)
* stdvar (calculate population standard variance over dimensions)
* count (count number of elements in the vector)
* count\_values (count number of elements with the same value)

**Most Common Functions**

* delta(v range-vector): calculates the difference between the first and last value of the time series in v.
* rate(v range-vector): calculates the per-second rate of increase of the time series in v.
* increase(v range-vector): calculates the increase in the time series in v.
* irate(v range-vector): calculates the per-second instant rate of increase of the time series in v.
* time(): returns the time associated with each value in the vector as the number of seconds since January 1, 1970 UTC.
* deriv(v range-vector): calculates the per-second derivative of the time series in v.
* resets(v range-vector): returns the number of resets of a counter metric in v.
* sort(v vector): sorts the elements of v.
* scalar(value): converts a single value into a vector with the same value repeated.
* label\_replace(v vector, map): returns a new vector with labels in v replaced based on the provided map of replacements.
* round(v vector): rounds the elements of v to the nearest integer.

Full list - [Querying basics | Prometheus](https://prometheus.io/docs/prometheus/latest/querying/basics/)