# 1 a + b (Numerical)

Negligible

#### 2 a and b

Negligible

#### 3 a as b

 $\mathbf{x} := (\text{number of items in a}) - 1$ TODO

## 4 avg(a)

x := (number of items in a) - 1  $0.171303 + 0.00296116x + 7.91336 \times 10^{-7}x^2$   $r^2 = 0.994094$ 

## 5 bag(a)

 $\begin{array}{l} {\bf x} := \text{(number of items in a) - 1} \\ -0.168636 - 0.000841481x + 0.0000299677x^2 \\ r^2 = 0.999968 \end{array}$ 

## 6 a + b (Strings)

Negligible

# 7 count(a)

 $\mathbf{x} := (\text{number of items in a}) - 1$ TODO 8  $a_1, a_2, ..., a_n$ 

x := n - 1

 $0.226851 - 0.00550817x + 0.0000146711x^2 + 4.80612 \times 10^{-8}x^3$  $r^2 = 0.840262$  Note: If x < 182, just use 0

## 9 if(a)

Negligible

#### 10 a contains b

x := (number of items in a) - 1  $0.0152971 - 0.00015426x + 6.87809 \times 10^{-7}x^2$   $r^2 = 0.906738$ 

## 11 deref(a)

x := number of times in a TODO

### 12 a / b

Negligible

#### 13 a.b

 $\mathbf{x} := (\text{number of items in a})$  - 1 TODO

## $14 \quad a = b$ (Numerical)

Negligible

## 15 a = b (Strings)

Negligible

# 16 a.exists(b)

 $\mathbf{x} := (\text{number of items in a})$  - 1 TODO

# 17 forall(a)

 $\mathbf{x} := (\text{number of items in a})$  - 1 TODO

## 18 forsome(a)

 $\mathbf{x} := (\text{number of items in a})$  - 1 TODO

### $19 \quad a > b$

Negligible

$$20 a >= b$$

Negligible

## 21 a groupas b

 $\mathbf{x} := (\text{number of items in a})$  - 1 TODO

#### 22 a in b

 $\mathbf{x} := (\text{number of items in b}) - 1$ TODO

# 23 a[b]

 $\mathbf{x} := (\text{number of items in a}) - 1$ TODO

## 24 a[b]

x := b TODO

#### 25 a intersect b

 $\mathbf{x} := (\text{number of items in b})$  - 1 TODO

## 26 a join b

 $\begin{aligned} \mathbf{x} &:= \text{(number of items in b) - 1} \\ -0.296612 + 0.0033636x + 0.0000845375x^2 \\ r^2 &= 0.99998 \end{aligned}$ 

#### 27 a < b

Negligible

Negligible

# 29 max(a)

 $\mathbf{x} := (\text{number of items in a})$  - 1 TODO

## 30 min(a)

 $\mathbf{x} := (\text{number of items in a})$  - 1 TODO

## 31 a % b

Negligible

### 32 a \* b

Negligible

### 33 -a

Negligible

# $34 \quad a <> b \ (Numerical)$

Negligible

Negligible

## 36 now()

Negligible

#### 37 a or b

Negligible

### 38 a orderby b (b := date)

x := (number of items in a) - 1TODO

### 39 a orderby b (b := enum)

x := (number of items in a) - 1TODO

### 40 a rangeas b

x := (number of items in a) - 1TODO

### 41 ref(a)

 $\mathbf{x} := (\text{number of items in a}) - 1$ TODO

#### 42 a $\sim \sim$ b

x := length of b

$$f(x) = \begin{cases} 0.676408; & x < 103 \\ 2.00131; & x \ge 103 \end{cases}$$

## 43 struct(a)

 $\begin{aligned} \mathbf{x} &:= \text{(number of items in a) - 1} \\ -6.26565 + 0.0267596x + 2.81054 \times 10^{-6}x^2 \\ r^2 &= 0.846738 \text{ Note: Ensure min result is 0} \end{aligned}$ 

#### 44 a - b

Negligible

#### 45 a subtract b

x := (number of items in b) - 1TODO

# 46 sum(a)

x := (number of items in a) - 1  $-0.01947 + 0.00329381x + 3.45479 \times 10^{-7}x^2$   $r^2 = 0.98972$ 

#### 47 a union b

x := (number of items in b) - 1  $0.195218 - 0.000825259x + 8.05861 \times 10^{-7}x^2$  $r^2 = 0.791186$  Note: If x ; 654, just use 0

## 48 unique(a)

x := (number of items in a) - 1TODO

## 49 uniqueref(a)

x := (number of items in a) - 1TODO

#### 50 a where b

x := (number of conditions in b) - 1TODO