

$$X?X?X=6, X=0, 1, \dots, 9$$

$$e^0 e^0 0 = 110 = 6$$

$$11 \log 1 = 110 = 6$$

$$2 + 2 + 2 = 6$$

$$\log_{\sqrt{3}} 3 * 3 = 2 * 3 = 6$$

$$\sqrt{4} + \sqrt{4} + \sqrt{4} = 6$$

$$5/5 + 5 = 6$$

$$6 + 6 - 6 = 6$$

$$-7/7 + 7 = 6$$

$$-\log_{\sqrt{8}} 8 + 8 = -2 + 8 = 6$$

$$(9 + 9)/\sqrt{9} = 18/3 = 6$$

```
library(magrittr)
B2D<-function(x) 2^(length(x):1-1)*x

#000#
c(exp(0), exp(0), 0) %>% B2D() %>% sum() == 6 &
#111#
c(1, 1, log(1)) %>% B2D() %>% sum() == 6 &
#222#
c(2, 2, 2) %>% sum() == 6 &
#333#
all.equal(log(3, base=sqrt(3))*3, 6) &
#444#
sqrt(4) + sqrt(4) + sqrt(4) == 6 &
#555#
5 / 5 + 5 == 6 &
#666#
6 + 6 - 6 == 6 &
#777#
- 7 / 7 + 7 == 6 &
#888#
-log(8, base=sqrt(8))+8 == 6 &
#999#
(9+9)/sqrt(9) == 6
```

```
## [1] TRUE
```