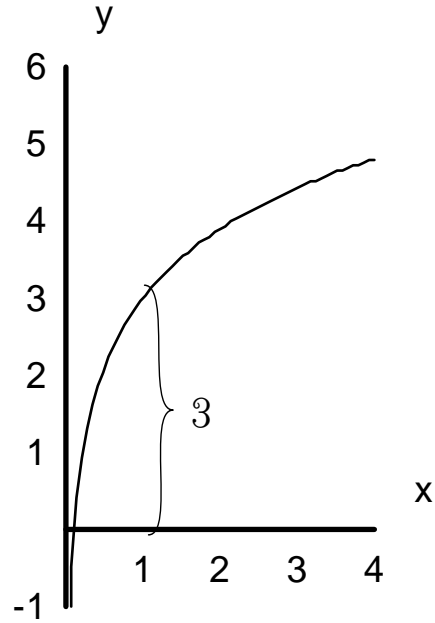


What's the relationship between $3\log(10x)$ and $9\log(10x)$?

1) $f(x)=3\log(10x)$

At $x=1$, for example,
 $f(1)=3\log(10)=3(1)=3$



2)

$f(x)=9\log(10x)$

Rewrite this as
 $g(x)=3 \cdot 3\log(10x)=3f(x)$

The 9 is really $3 \cdot 3$, so $g(x)$ is $f(x)$ stretched by a factor 3 vertically.

