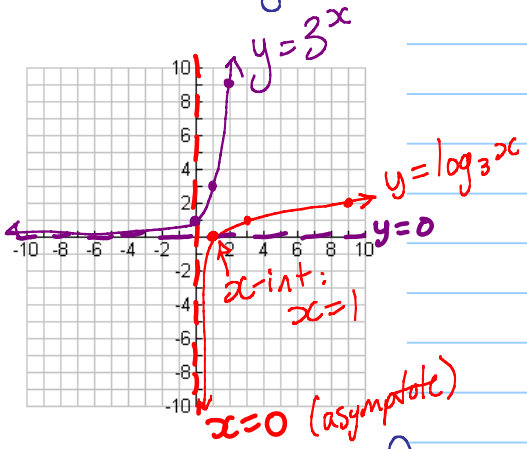
5.4 (cont.) Graphs of Log Functions

Note Title 26/10/2012

Draw $y = 3^x$ and $y = \log_3 x$ on the same grid.



Domain & Range of

$y = 3^x$

D: $x \in \mathbb{R}$

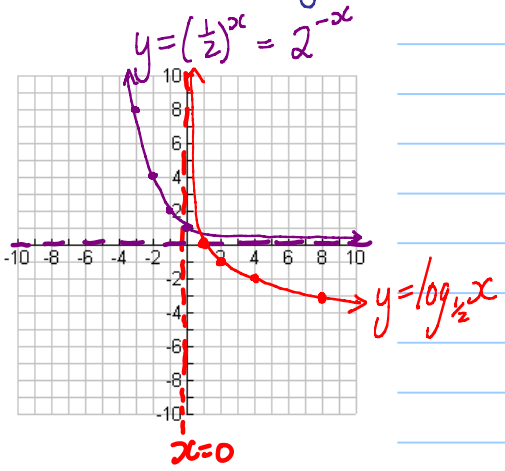
R: $y > 0$

$y = \log_3 x$

D: $x > 0$

R: $y \in \mathbb{R}$

Draw $y = (\frac{1}{2})^x$ and $y = \log_{\frac{1}{2}} x$ on the same grid.



$y = (\frac{1}{2})^x$

D: $x \in \mathbb{R}$

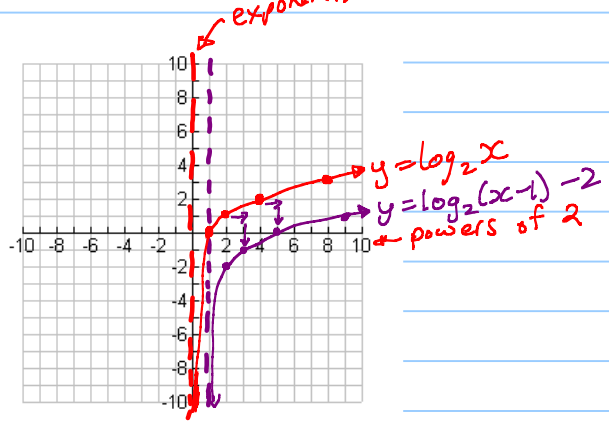
R: $y > 0$

$y = \log_{\frac{1}{2}} x$

D: $x > 0$

R: $y \in \mathbb{R}$

Draw the graph of $y = \log_2 x$ and $y = \log_2(x-1) - 2$ on the same grid.



D: $x > 1$

R: $y \in \mathbb{R}$

$\sqrt{x-1}$

D: $x - 1 \geq 0$

$\Rightarrow x \geq 0$

$\log(x-1)$

D: $x - 1 > 0$

$x > 1$