

(B3) (continued from the earlier page)

Now, we note the interesting fact below:  
 By our intelligent definition of  $K_i$  and  $m_i$ , ( $x_i$  and  $y_i$ )

(2) implies  $\rightarrow 2^{m_i} = \frac{K_i}{(K_i - m_i)}$

(5) implies  $\rightarrow \frac{y_i}{x_i} = 2^{m_i}$

(6) implies  $\rightarrow \frac{\log_2 y_i}{\log_2 x_i} = \frac{K_i}{(K_i - m_i)}$

The interesting fact (based on the above) is:

~~By (2)~~  $\frac{y_i}{x_i} = 2^{m_i} = \frac{K_i}{(K_i - m_i)} = \frac{\log_2 y_i}{\log_2 x_i}$

from (5)
from (2)
from (6)

That is (look at the endpoints for this last equality) we get:

$\frac{y_i}{x_i} = \frac{\log_2 y_i}{\log_2 x_i}$  — (7)