

# Math Diversion Problem 696

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It's pawn breaks [breakouts] which set the  
liberating tone for the pieces.  
— Kingscrusher (2018)

The problem is found at:

Source: <https://www.youtube.com/watch?v=IXg9Xic2-h4>

Title: Solve this Logarithmic equation with different bases

Presenter: MATHEMATICS BY LEVI

## 1 Problem

Given the relation

$$\log_2 x = \log_4 2, \tag{1}$$

solve for  $x$ .

## 2 Solution

So, off we go:

$$\log_2 x = \log_4 2 = \log_4 4^{1/2} = 1/2. \tag{2}$$

Now raise 2 to the last equation, to get

$$x = 2^{1/2}. \tag{3}$$