Math Diversion 1034

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> In the end, the "best" OS is the one that fits
> your workflow, not your ideology.
> — Mauro Huculak
> (from *Windows Central*)

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 Source: https://www.youtube.com/watch?v=3N7qfm9cSow
Title: 90% FAILED to Solve this Math Problem
 Presenter: Brain Station
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1 Problem

The following figure shows a "large" rectangle, subdivided into four smaller rectangles. Find the value of x.

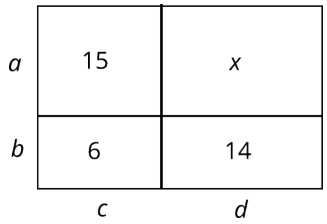

Figure 1. The numbers inside the smaller rectangles are their areas. Find the area x of the top right rectangle.

2 Solution

The areas of the inside rectangles are given as

$$x = a \cdot d, \quad a \cdot c = 15, \quad b \cdot c = 6, \quad b \cdot d = 14\,. \tag{1}$$

From this, we can write

$$(a \cdot c)(b \cdot d) = 15 \cdot 14\,. \tag{2}$$

But $x = a \cdot d$, so

$$x = a \cdot d = \frac{(a \cdot c)(b \cdot d)}{b \cdot c} = \frac{15 \cdot 14}{6} = 35\,. \tag{3}$$