Math Diversion 1099

P. Reany

May 28, 2026

In the middle of difficulty lies opportunity.
— John Archibald Wheeler

```
Source: https://www.youtube.com/shorts/3hsydDnzOKc
Title: Percentages
 Presenter: Guinness and Math Guy
```

1 Problem

40% of 30 equals what percent of 48?

2 Solution

These kinds of problems aren't hard once you get used to them. So, let P be the 'percentage' (without the '%' sign) we're looking for. Then

$$40\% \cdot 30 = P\% \cdot 48\,. \tag{1}$$

Next, we can solve for P, while dropping the percent signs:

$$P = \frac{40 \cdot 30}{48} = 25\,. \tag{2}$$

For the purists out there, we should write this as

$$P\% = 25\%\,. \tag{3}$$

On the other hand, if you want P to be a literal percentage (with the '%' sign), then (1) becomes instead

$$40\% \cdot 30 = P \cdot 48\,, \tag{4}$$

so that (3) becomes

$$P = 25\%\,. \tag{5}$$

I think that this second method is probably the better choice, and just make sure to let the '%' sign tag along, as was done here.