

June 1st

The digits of a number between 10 and 100 differ by 4.
e.g. 84 and 48.

Find the difference between the two numbers.
Can you explain why this answers is always the same?

$$84 - 48 = 36$$

$$62 - 26 = 36$$

In general, start with the number "ab"

Where $b = a - 4$

$$"ab - ba" =$$

$$10a + b - (10b + a) =$$

$$9a - 9b =$$

$$9a - 9(a - 4) =$$

$$36$$