A Magic Trick

Private detective Harriet Hesterton picked up the phone.

"Hi Detective Hesterton. This is Gus Spurious," said the voice on the other side.

"Good afternoon. Do you have another suspicious proof to examine?" she replied, remembering their last conversation (http://gofiguremath.org/2015/12/19/a-phony-proof/).

"No," said Gus. "I have a magic trick I can't figure out. My friend Alina showed it to me and ever since then I've been trying to understand how it works."

"Okay," Harriet told him, picking up a pen. "Tell me exactly what happened."

"She told me to pick a two-digit number with digits that weren't the same. I picked 42," Gus began. "Then she said to reverse its digits."

Harriet wrote:

$$42$$
$$24$$

"Then she said to subtract the smaller of those two numbers from the larger one to get a new two-digit number. If it was a one-digit number, she said to put a zero in front so it can be treated as a two-digit number."

$$42 - 24 = 18$$

"Then she said to reverse that new number…"

$$18$$
$$81$$

"… and add the new number to its reverse."

$$18 + 81 = 99$$

"Without looking at my result," Gus finished, "she predicted the answer was 99! How did she do it?"

Harriet looked over her scratch work. "This is a tricky one," she said. "I'll investigate and call you back."

Can you figure out how the magic trick works?

http://gofiguremath.org/2019/03/30/a-magic-trick/