

3.

let digit at tens place = x digit at units place = $9-x$

$$\therefore \text{number} = 10x + 9 - x$$

$$= 9x + 9$$

number formed by
interchanging digits

$$= 10(9-x) + x$$

$$= 90 - 10x + x$$

$$= 90 - 9x$$

acc. to con.

$$90 - 9x - (9x + 9) = 27$$

$$\Rightarrow 90 - 9x - 9x - 9 = 27$$

$$\Rightarrow -18x + 81 = 27$$

$$\Rightarrow 18x = 81 - 27$$

$$\Rightarrow x = \frac{54}{18} = 3$$

$$\therefore \text{number} = 9 \times 3 + 9$$

$$= 36$$

$$\text{check } 3 + 6 = 9$$

$$63 - 36 = 27$$