

$$\text{If: } 111 = 13 \\ 115 = 57$$

$$112 = 24$$

$$113 = 35$$

$$114 = 46$$

Then $117 = ??$

Solution:

It is easy to notice that the first digits (tens) of the numbers that are to the right part of each equation are equal to the last digits (unit) which are on the left.

Second digits on the right parts are obtained by summing all of the digits of the left digits of each equation.

So the first digit of the unknown number is 7.

The last digit is $1 + 1 + 7 = 9$

$$117 = 79$$

Answer: 79