Assignment No.1

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Download all python codes from

https://github.com/Abhishek7008/Assignment_1.git

and latex-tikz codes from

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1 Question No.1

The sum of the digits of a two-digit number is 12. The number obtained by interchanging the two digits exceeds the given number by 18. Find the number ?.

2 Solution

Let the tens digit of the required number be x and the units digit be y. Then,

$$x + y = 12 \tag{2.0.1}$$

Required Number = $(10x + y)$
Number obtained on reversing the digits=$(10y+x)$
Therefore,

$$\Rightarrow (10y + x) - (10x + y) = 18$$

$$\Rightarrow 9y - 9x = 18$$

$$\Rightarrow y - x = 2 \tag{2.0.2}$$

On adding 2.0.1 and 2.0.2 , We get,

$$\Rightarrow 2y = 14$$

$$\Rightarrow y = 7$$

Therefore,

$$x = 5$$

As Required Number $(10x + y)$

$$\Rightarrow 10(5) + y = 57$$

Hence, the required number is 57.