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GMT+7

Explanation:

Example:

1/ Number = 451

2/ reverse = ~~451~~ 154

3/ Subtract = 451 - 154 = 297

4/ Reverse 297

5/ $\rightarrow 792$

6/ $\rightarrow 792 + 297 = 1089$

Explanation:

$$\begin{array}{r} \text{Hundreds} + \text{tens} + \text{units} \\ \downarrow \quad \downarrow \quad \downarrow \\ 100 \quad 10 \quad 1 \end{array}$$

\rightarrow 3 digit number ex. 531
472
653
...

~~replace~~

Assumed the chosen number - replace with a, b, c
 Hundreds + tens + units
 $100 \times a \quad 10 \times b \quad 1 \times c$

\rightarrow so $100 \times a$

$\rightarrow 100a + 10b + c$

As it's said we need to reverse the chosen number:
 we got the equation:

$\rightarrow 100c + 10b + a$

so we need to subtract as the next step:

$\rightarrow (100a + 10b + c) - (100c + 10b + a)$

 \rightarrow Rearrange:

$\rightarrow 100a + 10b + c - 100c - 10b - a = 99a - 99c \rightarrow \text{Factorise} = 99(a - c)$

We got the equation $99(a-c)$

$$\rightarrow a \rightarrow 0 \leq a \leq 9$$

$$\rightarrow b \rightarrow 0 \leq b \leq 9$$

$$\rightarrow c \rightarrow 0 \leq c \leq 9$$

~~$a \neq c$~~ and $a \text{ must } > c$

\rightarrow so we know that $a - c = x$

\rightarrow and so $\rightarrow 0 \leq x \leq 9$ (Always)

or

$$0 \leq a - c \leq 9$$

so x gonna be a number from ~~0 to 9~~ 1 to 9

\rightarrow explanation

ex. $762 \rightarrow 7-2 = 5$ (x will be 5)

~~654~~ $\rightarrow 8-7 = 1$ (x will be 1)

From that:

we got the equation $99(x) = 99 \times x$ (x must be from $\emptyset + 0$)

and so \rightarrow

possible answer = $99 \times 1, 99 \times 2, 99 \times 3, 99 \times 4, \dots, 99 \times 9$

\downarrow	\downarrow	\downarrow	\downarrow	\downarrow
99	198	297	396	891

\rightarrow all possible answer = $\{99, 198, 297, 396, 495, 594, 693, 792, 891\}$

when you reverse one of those number and add the original number you got 1089.

ex. $699 \rightarrow 990$
 $\rightarrow 699 + 990 = 1089$

$396 \rightarrow 693$	$792 \rightarrow 297$
$396 + 693 = 1089$	$792 + 297$
	$= 1089$