

[1]2.

[-1]

82

[]

$$ab \quad (1 \leq a \leq 9, 0 \leq b \leq 9)$$

() $a + b = 10$

, () $b = 0, 2, 4, 6, 8$

$(a, b) = (8, 2), (6, 4), (4, 6), (2, 8)$

82, 64, 46, 28

가 82

[-2]

14

[]

$A = \{6, 12, 18, 24, 30, 36, 42, 48\} \quad n(A) = 8$

$B = \{1, 2, 3, 6, 9, 18\} \quad n(B) = 6$

$n(A) + n(B) = 8 + 6 = 14$

[-3]

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1 9 가

가 1 9

1, 2, 3, $4(=2^2)$, 5, $6(=2 \times 3)$, 7, $8(=2^3)$, $9(=3^2)$

1 9

$2^3 \times 3^2 \times 5 \times 7 = 2520$

[-4]

53 53

[]

$15 = 3 \times 5 \quad 100 \quad 15$

3 5

3 5

100 3 A, 5

B

$n(A) = 33, n(B) = 20$

, 3 5 15

$n(A \cap B) = 6$

$\therefore n(A \cup B) = 33 + 20 - 6 = 47$

3 5

$n((A \cup B)^C) = n(U) - n(A \cup B)$

$= 100 - 47 = 53$

100 15

53

[-5]

[]

가 0

, 5

5

$24 = 5 \times 4 + 4$

$51 = 5 \times 10 + 1$

$65 = 5 \times 13$

$73 = 5 \times 14 + 3$

$92 = 5 \times 18 + 2$

[-6]

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$19 - 1 = 18 \quad x \quad x \quad 18$

가

[-7]

44

[1]2.

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$$50 = 3 \times 16 + 2 \quad 3 \quad 16$$

$$50 = 9 \times 5 + 5 \quad 9 \quad 5$$

$$50 = 27 \times 1 + 23 \quad 27 \quad 1$$

$$16 + 5 + 1 = 22$$

$$\therefore + + + = 16 + 5 + 1 + 22 = 44$$

[-8]

1

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$$a = b \times 12 + 1 = 6 \times b \times 2 + 1 \quad a \quad 6$$

$$1 \quad .$$

[-9]

3

[]

$$p = 9 \times a + 7, \quad q = 9 \times b + 5$$

$$p + q = 9 \times a + 7 + 9 \times b + 5$$

$$= 9 \times a + 9 \times b + 9 + 3$$

$$= 9 \times (a + b + 1) + 3$$

[-10]

60

[]

$$x = 8 \times 7 + 4 \quad x = 60$$

[-11]

6 6

[]

$$42 \quad 1, 2, 3, 6, 7, 14, 21, 42 \quad , \quad 4$$

$$6 \quad 6 \quad 6 \quad .$$

[-12]

[]

$$7 \quad \text{가 } 4 \quad 3$$

[-13]

24, 84

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$$12 \quad \rightarrow 12, 24, 36, 48, 60, 72, 84, 96$$

$$20 \quad \text{가 } 4 \quad 24, 84$$

[-14]

$$1, 2, 3, 4, 6, 8, 12, 16, 24, 48$$

$$8, 16$$

$$16$$

[]

$$48 \quad \quad \quad 21$$

$$5\text{가} \quad , \text{가} \quad .$$

$$48 \quad 48$$

$$48$$

$$1, 2, 3, 4, 6, 8, 12, 16, 24, 48 \quad .$$

$$21 \quad 5\text{가}$$

$$8, 16 \quad .$$

$$\text{가} \quad 16 \quad .$$

[-15]

19

[]

$$x$$

$$x = 12 \times 6 + 7 = 79 = 16 \times 4 + 15$$

$$q = 4, \quad r = 15$$

$$\therefore q + r = 4 + 15 = 19$$

[-16]

$$x = 42, \quad y = 15$$

[1]2.

[]

 $6, 12, 18, 24, 30, 36, 42, \dots$
 $x = 42$
 $45, 1, 3, 5, 9, 15, 45 \quad y = 15$

[-17]

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 $A \subset B \quad B = 6$
 $, 1, 2, 3, 6 \quad 1$
 $2 + 3 + 6 = 11$

[-18]

0

[]

 $x = 7 \quad 6 \quad \text{가 } 3$
 $x = 7 \times 6 + 3 = 45$
 $45 = 5 \times 9 + 0 \quad x = 5 \quad 0$

[-19]

[]

 $7k+1 \quad ,$
 $7k+2 \quad ,$
 $7k+3 \quad ,$
 \vdots
 $7k+7$
 $(\quad , k \geq 0)$
 $250 (= 7 \times 35 + 5) \quad 5$

[-20]

15

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 $2^{18} \quad 2 \quad 18 \quad 2^{18} \quad 2 \quad 5$
 $2^5 \quad 2 \quad 13 \quad 2^{13}$
 $, 2^{18} = 2^5 \times 2^{13} \quad \dots\dots$
 $2^{13} \times 5^{13} \quad 2 \quad 13 \quad , \quad 5 \quad 13$
 $2 \times 5 = 10 \quad 13 \quad 10^{13}$
 $, 2^{13} \times 5^{13} = (2 \times 5)^{13} = 10^{13} \quad \dots\dots$
 $2^{18} \times 5^{13} = (2^5 \times 2^{13}) \times 5^{13} = 2^5 \times (2^{13} \times 5^{13}) = 2^5 \times 10^{13}$
 $= 32 \times 10^{13} = \frac{32000 \dots 00}{13}$
 $2^{18} \times 5^{13} \quad 15$
 $\therefore N = 15$