

2.

1. Division by 2	2. Remainder	3. Power of 2	5. Check
$2 \overline{) 28}$	0	2^0	
$2 \overline{) 14}$	0	2^1	
$2 \overline{) 7}$	1	2^2	4
$2 \overline{) 3}$	1	2^3	+ 8
1 $\longrightarrow$	1	2^4	+ 16

4. $\therefore 28_{10} = 11100_2$

Padded to 8-bit binary #: 00011100₂

* You are free to use the division of your choice to do the conversion.

$$\begin{array}{r} 4 \\ + 8 \\ + 16 \\ \hline 28 \end{array}$$

1. Division by 2 2. Remainder 3. Power of 2 5. Check

$2 \overline{) 498}$	0	x	2^0
$2 \overline{) 249}$	1	x	2^1
$2 \overline{) 124}$	0	x	2^2
$2 \overline{) 62}$	0	x	2^3
$2 \overline{) 31}$	1	x	2^4
$2 \overline{) 15}$	1	x	2^5
$2 \overline{) 7}$	1	x	2^6
$2 \overline{) 3}$	1	x	2^7
1	1	x	2^8

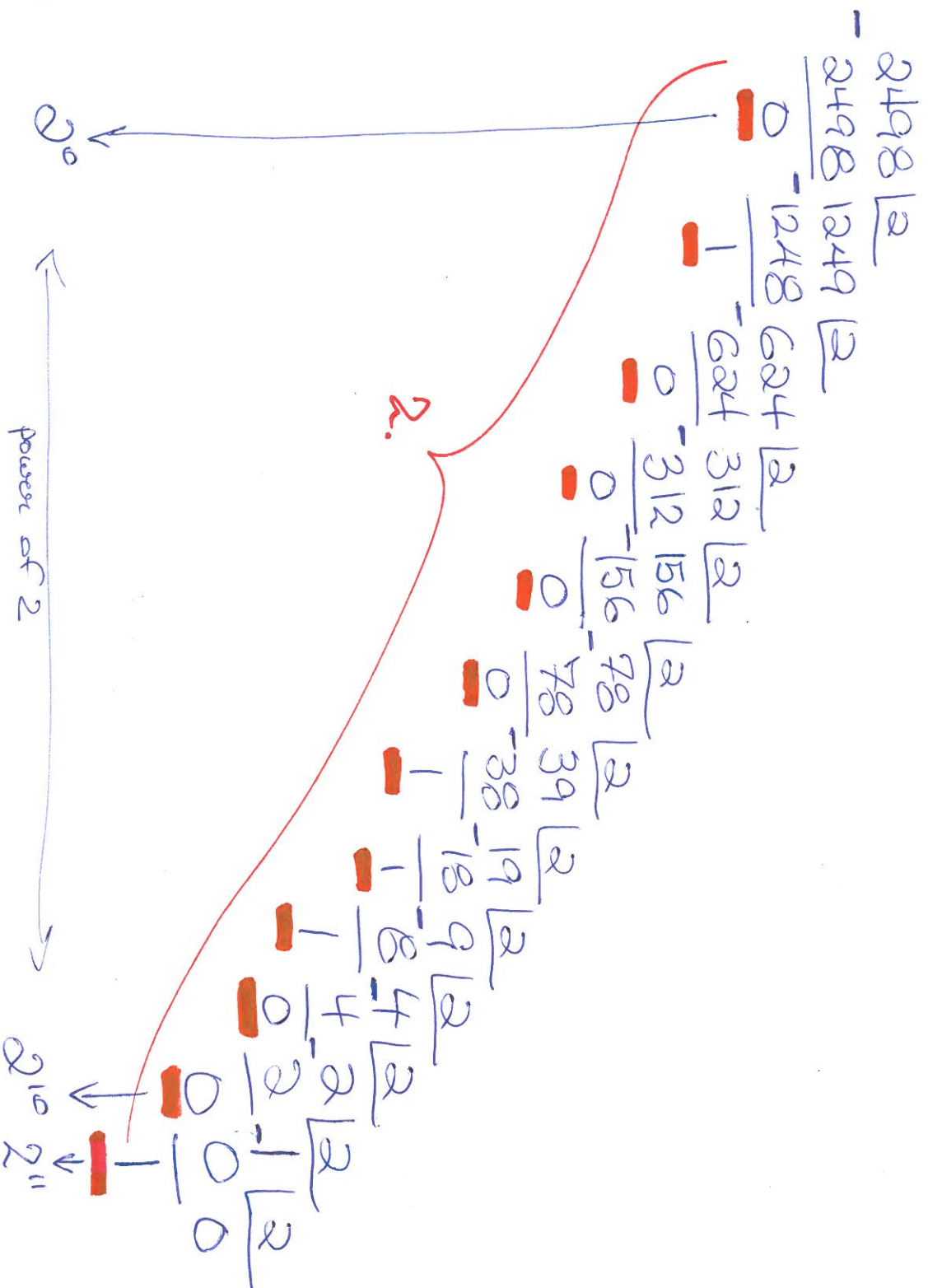
$$\begin{array}{r}
 + \quad 16 \\
 32 \\
 64 \\
 128 \\
 256 \\
 \hline
 498_{10} \quad \checkmark
 \end{array}$$

4. $498_{10} = 1111110010_2$

Padded to 16-bit binary #: 0000000111110010₂

* You are free to use the division of your choice to do the conversion.

C. 1.



3.

4.

5.

$$\therefore 2498_{10} = 1001111000010_2$$

padding to 16-bit binary #: 0000100111000010₂

$$2 + 64 + 128 + 256 + 2048 = 2498_{10}$$