

## Residue Grid for $a + b \leq 10$

$a \backslash b$	1	2	3	4	5	6	7	8	9
1	37	93	49	05	61	17	73	29	85
2	53	09	65	21	77	33	89	45	
3	69	25	81	37	93	49	05		
4	85	41	97	53	09	65			
5	01	57	13	69	25				
6	17	73	29	85					
7	33	89	45						
8	49	05							
9	65								

### Notes

- Residues are the last two digits of the decimal representation of the encoded string " $a + b =$ ".
- Directionality is preserved: each cell represents the ordered pair  $(a, b)$ . For example,  $2 + 3$  (row 2, column 3) has residue 65, while  $3 + 2$  (row 3, column 2) has residue 25.
- Includes  $4 + 6$  at row 4, column 6 (residue 65) and  $6 + 4$  at row 6, column 4 (residue 85), showing distinct residues due to direction.
- Cells are blank where  $a + b > 10$ .

## ASCII Grid for Residues where $a + b \leq 10$

$a \backslash b$	1	2	3	4	5	6	7	8	9
1	%	]	1	[5]	=	[17]	I	[29]	U
2	5	[9]	A	[21]	M	!	Y	-	
3	E	[25]	Q	%	]	1	[5]		
4	U	)	a	5	[9]	A			
5	[1]	9	[13]	E	[25]				
6	[17]	I	[29]	U					
7	!	Y	-						
8	1	[5]							
9	A								

### Notes

- Residues are shown as ASCII characters if printable (33-126), otherwise as [residue].
- Example: Residue 65 (for  $4 + 6$ )  $\rightarrow$  'A', residue 85 (for  $6 + 4$ )  $\rightarrow$  'U'.

## HEX Grid for Residues where $a + b \leq 10$

$a \backslash b$	1	2	3	4	5	6	7	8	9
1	25	5D	31	05	3D	11	49	1D	55
2	35	09	41	15	4D	21	59	2D	
3	45	19	51	25	5D	31	05		
4	55	29	61	35	09	41			
5	01	39	0D	45	19				
6	11	49	1D	55					
7	21	59	2D						
8	31	05							
9	41								

### Notes

- Each cell shows the two-digit hexadecimal representation of the residue.
- Example: Residue 65 (for  $4 + 6$ )  $\rightarrow$  "41", residue 85 (for  $6 + 4$ )  $\rightarrow$  "55".

## Binary Grid for Residues where $a + b \leq 10$

$a \backslash b$	1	2	3	4	5	6	7	8	9
1	00100101	01011101	00110001	00000101	00111101	00010001	01001001	00011101	01010101
2	00110101	00001001	01000001	00010101	01001101	00100001	01011001	00101101	
3	01000101	00011001	01010001	00100101	01011101	00110001	00000101		
4	01010101	00101001	01100001	00110101	00001001	01000001			
5	00000001	00111001	00001101	01000101	00011001				
6	00010001	01001001	00011101	01010101					
7	00100001	01011001	00101101						
8	00110001	00000101							
9	01000001								

### Notes

- Each cell shows the 8-bit binary representation of the residue.
- Example: Residue 65 (for  $4 + 6$ )  $\rightarrow$  "01000001", residue 85 (for  $6 + 4$ )  $\rightarrow$  "01010101".