

# Numbering Systems 01/27/2025      worksheet Name: \_\_\_\_\_

Value	Decimal(Base 10)	Octal(Base 8)	Hexadecimal(Base 16)	Binary(Base 2)
<b>Zero</b>	0	0	0	0
<b>One</b>	1	1	1	1
<b>Two</b>	2	2	2	10
<b>Three</b>	3	3	3	11
<b>Four</b>	4	4	4	100
<b>Five</b>	5	5	5	101
<b>Six</b>	6	6	6	110
<b>Seven</b>	7	7	7	111
<b>Eight</b>	8	10	8	1000
<b>Nine</b>	9	11	9	1001
<b>Ten</b>	10	12	A	1010
<b>Eleven</b>	11	13	B	1011
<b>Twelve</b>	12	14	C	1100
<b>Thirteen</b>	13	15	D	1101
<b>Fourteen</b>	14	16	E	1110
<b>Fifteen</b>	15	17	F	1111
<b>Sixteen</b>	16	20	10	10000
<b>Seventeen</b>	17	21	11	10001
<b>Eighteen</b>	18	22	12	10010
<b>Nineteen</b>	19	23	13	10011
<b>Twenty</b>	20	24	14	10100
<b>Twenty One</b>	21	25	15	10101
<b>Twenty Two</b>	22	26	16	10110
<b>Twenty Three</b>	23	27	17	10111
<b>Twenty Four</b>	24	30	18	11000
<b>Twenty Five</b>	25			
<b>Twenty Six</b>	26			
<b>Twenty Seven</b>	27			
<b>Twenty Eight</b>	28			
<b>Twenty Nine</b>	29			
<b>Thirty</b>	30			
<b>Thirty One</b>	31			
<b>Thirty Two</b>	32			
<b>Thirty Three</b>	33			

## Tally Numbering System Quiz

T/F Circle the correct answer

1. (T / F) Tally numbering system only has 2 characters | and /.
2. (T / F) Tally numbering system is good for math like +(addition) and -(subtraction).
3. (T / F) Tally numbering system is good for counting, like the number of goals- soccer game.

Fill in the answer: What is the tally for the values 5: \_\_\_\_\_; 9: \_\_\_\_\_; 14 \_\_\_\_\_;

## Octal Numbering System Quiz

T/F Circle the correct answer

1. (T / F) Octal numbering system only has digits 0, 1, 2, 3, 4, 5, 6, & 7?
2. (T / F) Octal numbering system never has the digit 8 or 9?
3. (T / F) Octal for the **value eight** equals “One Zero”,  $10_{\text{octal}}$ ; we do not say ten.
4. (T / F) Octal numbering system does not really exist, it was made up by Coach Arthur.

**Fill in the answer - Octal Numbers:**

What is the Octal for the values six: \_\_\_\_\_; nine: \_\_\_\_\_; fifteen: \_\_\_\_\_; sixteen: \_\_\_\_\_;

## Hexadecimal Numbering System Quiz

T/F Circle the correct answer

1. (T / F) Hexadecimal numbering system only has both digits (0-9) & letters(A-F)?
2. (T / F) Hexadecimal numbering system has sixteen digits (0-9) and letters(A-F)?
3. (T / F) Hexadecimal for the **value sixteen** equals One Zero,  $10_{\text{hexadecimal}}$  ?

Fill in the answer- Hexadecimal Numbers:

What is the Hexadecimal for the values nine: \_\_\_\_\_; eleven: \_\_\_\_\_; fifteen: \_\_\_\_\_;

sixteen: \_\_\_\_\_; eighteen: \_\_\_\_\_; thirty two: \_\_\_\_\_;

## Binary Numbering System Quiz

T/F Circle the correct answer

1. (T / F) Binary numbering system only has digits (0-9) ?
2. (T / F) Binary numbering system is useful for robotics, since a wire can have voltage(1) or not(0)?
3. (T / F) Binary numbering system can represent any number?
4. (T / F) Binary numbering system is based upon the powers of 2?

Fill in the answer- Binary Numbers:

What is the Binary for the values one: \_\_\_\_\_; two: \_\_\_\_\_; three: \_\_\_\_\_; Four: \_\_\_\_\_;

seven: \_\_\_\_\_; eight: \_\_\_\_\_; nine: \_\_\_\_\_;