**Numerical Bases Quiz**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ten | five | two | positional | symbolic |
| three | duodecimal | decimal | relative | ordinal |
| bicimal | binary | ternary | eight  | six |
| one | zero | seven | nine | Egyptian |
| Roman | Hindu | Chinese | Arabic | British |

1. We use a base \_\_\_\_\_\_\_\_\_\_\_\_\_ number system. It’s also known as the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ system. We use \_\_\_\_\_\_\_\_\_\_\_\_\_\_ different digits to express our numerals when we write them. The digits are \_\_\_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_\_. Our current numerals are based on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ numerals.
2. Unlike the Ancient Egyptian number system, we use place value which makes our system \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vs. being \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Computers use the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ system which uses \_\_\_\_\_\_\_\_\_\_\_\_ different digits to express numerals. Those digits are \_\_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_\_\_.
4. What does the prefix deci- mean?
5. A digit's value is the digit multiplied by the value of its place. True or False
6. What does the Identity Property of Multiplication state? (You can write it in math or English.)
7. Write my age (49) in base three and in base seven.
8. What is 1241o in base five?
9. What is 111112 in base 10?
10. What does 107 represent in base 10?

Bonus: Write the year 2016 in binary.