

Worksheet 1.5.7: Number Systems Exercises

1. Define the following:

Decimal: _____

Binary: _____

Hexadecimal: _____

2. Explain how binary and hexadecimal numbers are used with computers.

3. Without using a calculator, convert the binary numbers into decimal numbers.

A. 01111011 _____ B. 00000111 _____

C. 11110000 _____ D. 10101010 _____

E. 01010101 _____ F. 10010011 _____

G. 00111001 _____ H. 11111111 _____

I. 11010101 _____ J. 10000000 _____

4. Convert the decimal numbers into binary numbers.

A. 23 _____ B. 131 _____

C. 3 _____ D. 234 _____

E. 79 _____ F. 199 _____

5. Convert the decimal numbers into hexadecimal numbers.

A. 16 _____

B. 131 _____

C. 3 _____

D. 234 _____

E. 65 _____

F. 255 _____

6. Convert the hexadecimal numbers into decimal numbers.

A. 27 _____

B. AA _____

C. 3 _____

D. F1 _____

E. 241 _____

F. 255 _____