

## DOTTED DECIMAL NOTATION (Worksheet #1)

You've learned that devices connected to a LAN use binary numbers to communicate, but you and I have trouble using those numbers. We need a numbering system a little more common and easier to recognize. A router may see a binary number but a human recognizes this as dotted decimal notation.

You'll remember that we began by converting numbers to groups of 4 octets (or bytes), and that each octet equates to a real number. A router sees 11001010 (128+64+8+2) but we see 202.

An entire IP address might look like this:

11000111.00100000.00001111.00000111  
202 . 32 . 15 . 7

Try to convert these binary numbers to dotted decimal notation:

10000110 = \_\_\_\_\_

00101011 = \_\_\_\_\_

01111010 = \_\_\_\_\_

11001100 = \_\_\_\_\_

11110100 = \_\_\_\_\_

11111101 = \_\_\_\_\_

10111011 = \_\_\_\_\_

11000111 = \_\_\_\_\_

00010100 = \_\_\_\_\_

Convert these decimal numbers to binary:

235 = \_\_\_\_\_

163 = \_\_\_\_\_

193 = \_\_\_\_\_

63 = \_\_\_\_\_

Convert these IP addresses in binary form to dotted decimal notation:

10111000101010000111101001100111

\_\_\_\_\_

00110111110111010111001111101111

\_\_\_\_\_