1. Convert the following number to binary and hexadecimal.

$$92.25_{10} = \_\_\_\_\_{}_2 = \_\_\_\_\_{}_{16}$$

2. Convert the following number to binary and decimal.

$$37.E_{16} = \_\_\_\_\_{}_2 = \_\_\_\_\_{}_{10}$$

3. Perform the following unsigned addition and multiplication and verify your answers in base 10.

$$001011_2 + 101110_2 = \_\_\_\_\_{}_2$$

$$0101_2 \times 1101_2 = \_\_\_\_\_{}_2$$

4. Construct a table for a 4-3-2-1 weighted code and write 276 using this code.

5. Perform the following subtraction using 6-bit 2's complement arithmetic and verify your answer in base 10.

$$11_{10} - 21_{10} = \_\_\_\_\_{}_{10}$$