

Numbering System Conversions

Show Work! Point deduction taken if work not shown

1. Convert 147_{10} to binary

10010011_2

$$128 - 64 - 32 - 16 - 8 - 4 - 2 - 1$$

$$128 + 16 + 2 + 1 = 147$$

1 0 0 1 0 0 1 1

2. Convert 63_{10} to binary

111111_2

$$32 - 16 - 8 - 4 - 2 - 1$$

$$32 + 16 + 8 + 4 + 2 + 1 = 63$$

3. Convert 97_{10} to hexadecimal

61_{16}

$$97/16 = 6 \text{ R } 1$$

4. Convert 95_{10} to hexadecimal

$5F_{16}$

$$95/16 = 5 \text{ R } 15$$

$5F_{16}$

5. Convert $3D_{16}$ to binary

00111101_2

$$3 = 0011$$

$$D/13 = 1101$$

6. Convert 235_{10} to hexadecimal. Then convert hexadecimal value to binary

$$235/16 = 14 \text{ R } 11$$

EB_{16}

EB_{16}

$$E/14 = 1110$$

$$B/11 = 1011$$

11101011_2