

BASICS

$$\begin{array}{cccc} 3 & 2 & 1 & 0 \\ 2 & 2 & 2 & 2 \\ 1 & 0 & 0 & 1 \end{array}$$

$$2^3 \times 1 + 2^2 \times 0 + 2^1 \times 0 + 2^0 \times 1$$

$$8 \times 1 + 1 \times 1$$

$$9$$

```
printf("Enter the binary number: ");  
scanf("%d", &binary);
```

```
decimal = 0, weight = 1;
```

```
while(binary != 0)  
{  
    rem = binary % 10;  
    decimal = decimal + rem*weight;  
    binary = binary / 10;  
    weight = weight*2;  
}
```

1 0 0 1

rem = 1

decimal = 1

binary = 1 0 0

weight = 1*2 = 2