

$$= 16 =$$

$$6 + ( 1 \times 10^1 ) )$$

This is known as carrying . When the result of an addition exceeds the value of a digit , the procedure is to " carry " the excess amount divided by the radix ( that is ,  $10 / 10$  ) to the left , adding it to the next positional value . This is correct since the next position has a weight that is higher by a factor equal to the radix . Carrying works the same way in binary :

1 1 1 1 1 ( carried digits )

0 1 1 0 1

+ 1 0 1 1 1

? ? ? ? ? ? ? ? ? ? ? ?