

Converting from base 10 (decimal) to base 2 (binary)

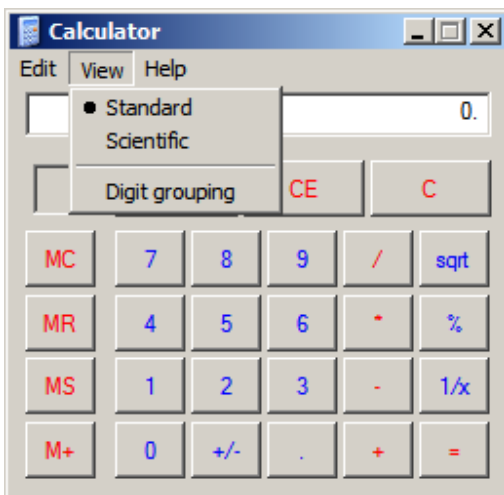
You can convert a base 10 number to its binary equivalent by repeatedly dividing by 2 & keeping track of the remainder. The first remainder will be the least significant digit. Continue to divide the result of the previous division by 2 until the result is 0.

Example: convert the decimal number 181 into binary:

$181 \div 2 =$	90 R 1
$90 \div 2 =$	45 R 0
$45 \div 2 =$	22 R 1
$22 \div 2 =$	11 R 0
$11 \div 2 =$	5 R 1
$5 \div 2 =$	2 R 1
$2 \div 2 =$	1 R 0
$1 \div 2 =$	0 R 1

Result: 10110101

You can check your work using XP's calculator. First, change the calculator to 'scientific':



Make sure the base is set to 'Dec' & type in your number: Next switch the base to 'Bin':

