

Converting an integer to binary means representing that integer in base-2, which is the binary numeral system. In binary, there are only two digits: 0 and 1. Here's how you can convert an integer to binary step by step:

1. **\*\*Start with the Integer\*\***: Begin with the integer you want to convert to binary. Let's say you have the decimal integer 73 as an example.
2. **\*\*Division by 2\*\***: Divide the integer by 2. Note the quotient and the remainder. In the case of 73, when you divide by 2, you get a quotient of 36 and a remainder of 1.
3. **\*\*Write Down the Remainder\*\***: Write down the remainder, which is either 0 or 1. In this case, you have a remainder of 1.
4. **\*\*Repeat the Process\*\***: Continue the process with the quotient you obtained in the previous step. In this case, you'd use 36 as your new number.
5. **\*\*Divide Again\*\***: Divide 36 by 2, which gives you a quotient of 18 and a remainder of 0.
6. **\*\*Write Down the Remainder\*\***: Write down the remainder, which is 0 in this case.
7. **\*\*Repeat Again\*\***: Continue the process with the quotient, which is 18.
8. **\*\*Keep Repeating\*\***: Keep repeating this process, dividing by 2 and writing down the remainders until the quotient becomes 0.
  - 18 divided by 2 gives 9 with a remainder of 0.
  - 9 divided by 2 gives 4 with a remainder of 1.
  - 4 divided by 2 gives 2 with a remainder of 0.
  - 2 divided by 2 gives 1 with a remainder of 0.
  - 1 divided by 2 gives 0 with a remainder of 1.
9. **\*\*Read the Binary Digits\*\***: Now, read the binary digits you wrote down from bottom to top. In this case, the binary representation of 73 is 1001001.

So, the decimal integer 73 in binary is 1001001. This process works for converting any decimal integer to its binary representation.