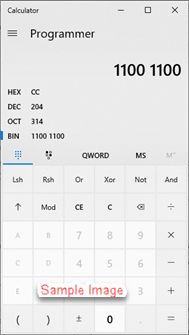
# Binary Calculations

Time required: 15 minutes

**How to Create Screenshots:** Please use the Windows Snip and Sketch Tool or the Snipping Tool. Paste a screenshot of just the program you are working on. If you are snipping a virtual machine, make sure your focus is outside the virtual machine before you snip.

1. Press and hold down the **Windows key** & **Shift**, then type **S.** This brings up the on-screen snipping tool.
2. Click and Drag your mouse around whatever you want to snip.
3. Release the mouse button. This places the snip into the Windows Clipboard.
4. Go into Word or wherever you want to paste the snip. Hold down **CTRL**, then type **V** to paste the snip.

## Lab Description

You won’t be allowed to use a calculator during the CompTIA Network exam, but when calculating conversions on the job, using a calculator can make the task much simpler. Take, for example, the decimal number 131. Complete the following steps to convert it to a binary number using the Windows 10 Calculator:

1. Open the **Calculator** app. Click the menu icon, and then click **Programmer**. Verify that the **DEC** option is selected.
2. Type **131** Other formats of this number are listed automatically. The binary equivalent of the decimal number 131, which is 1000 0011, appears next to the BIN option.
3. Select the BIN option, as shown in the sample image, and type a binary number to convert it to a decimal number.  
   Insert a screenshot

Click or tap here to enter text.

If you’re connected to the Internet and using a web browser, you can quickly convert binary and decimal numbers using any number of calculator on the internet.

1. Go to google.com, search for a binary to decimal converter.
2. To convert a binary number into decimal form, type 0b (again, that’s the number zero, not the letter O) before the binary number. For example, entering 0b10000011 in decimal returns the decimal number 131.  
   Insert a screenshot

Click or tap here to enter text.

1. Use an online calculator to convert a decimal number to binary.

Click or tap here to enter text.

To best prepare yourself for the CompTIA Network+ exam, consider performing these calculations manually and using the calculator only to check your results. If your manual calculations don’t match the calculator’s computations, make sure you investigate carefully to see where you made a mistake. Repeat until your calculations are consistently correct.

## Assignment Submission

Attach this completed document to the assignment in Blackboard.