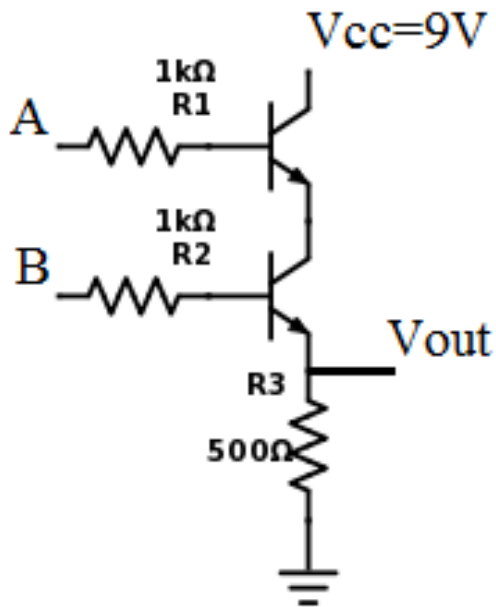


# EN-3212 Electronics Worksheet 11

## Logic Gates

In lecture, we've discussed how it can be used in the linear mode at length and we saw how to use an integrated circuit (the op-amp) that incorporated the Class A amplifier that we discussed. Let's discuss a few different applications for the transistor.

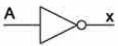




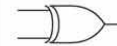



# EN-3212 Electronics Worksheet 11

## Logic Gates

We looked at one integrated circuit (the AND gate) that made use of the transistor as a switch. Now, we're going to take a look at a few more ICs like the AND gate, and we'll see how to use them to do some interesting things.

## Logic Gates

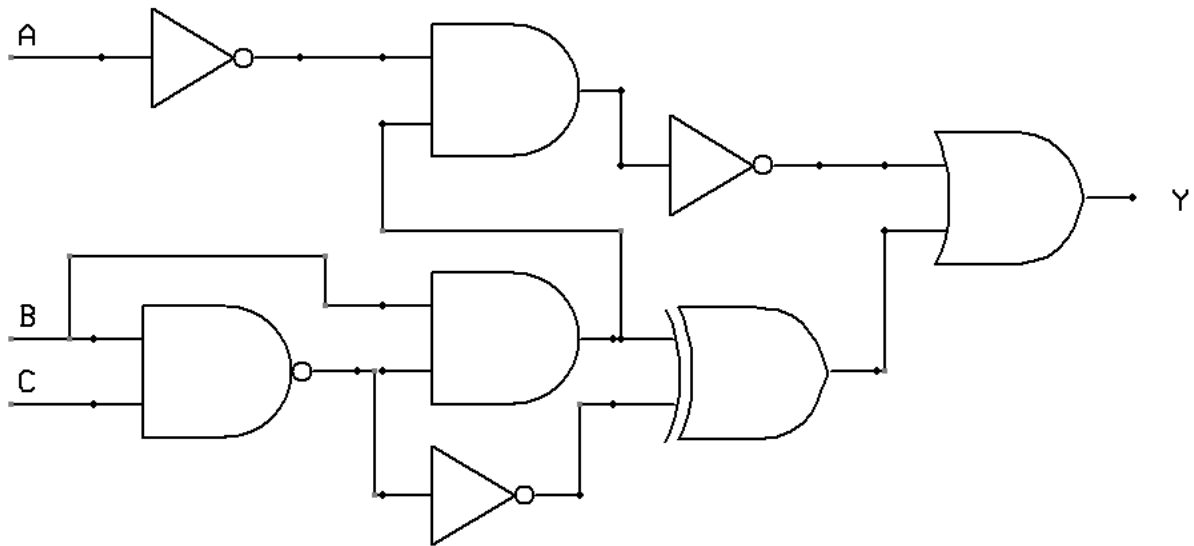
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In the table above, what do the 0s and 1s indicate?

Let us try building a table and filling it out for the following logic circuit.

# EN-3212 Electronics Worksheet 11

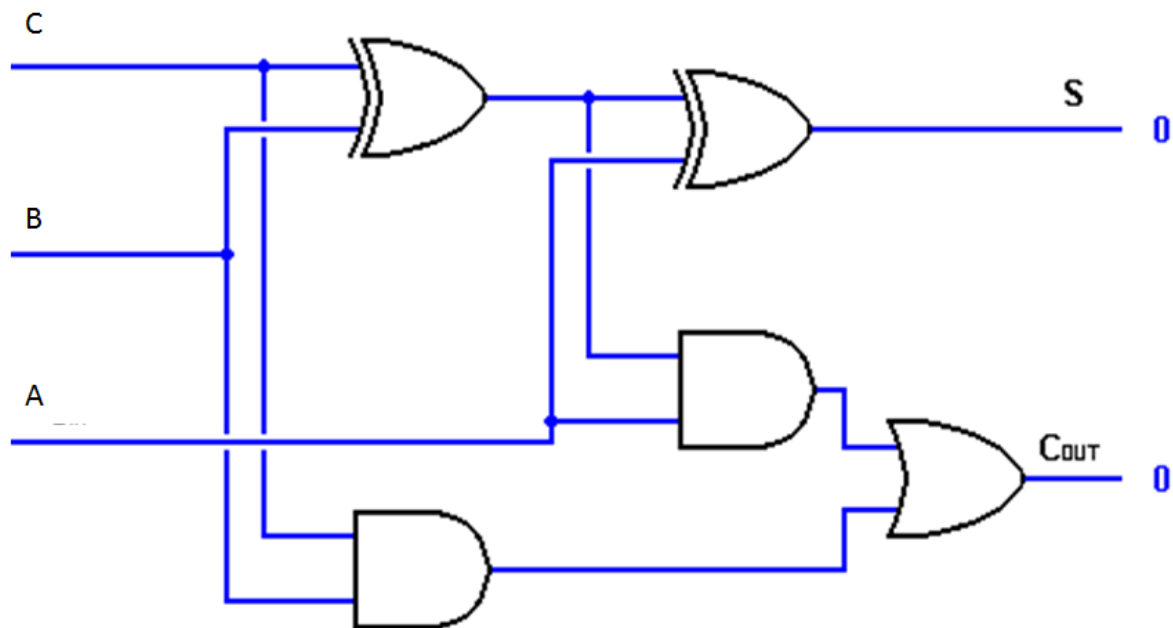
## Logic Gates



# EN-3212 Electronics Worksheet 11

## Logic Gates

Write out the truth table for the logic circuit below:

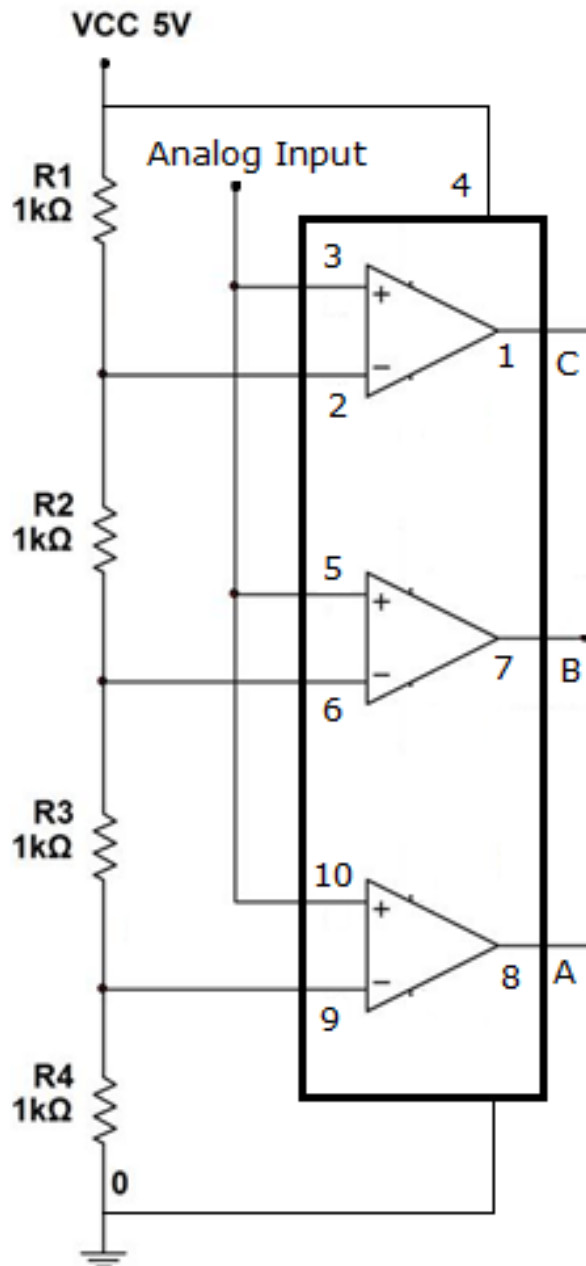


# EN-3212 Electronics Worksheet 11

## Logic Gates

Let's talk about a subject we covered a while back.

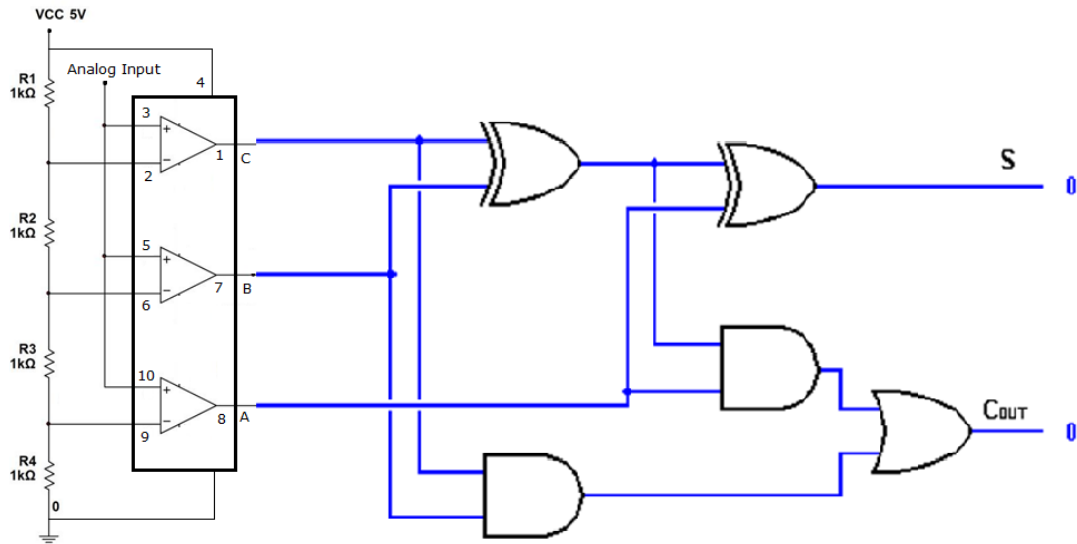
What does the following circuit do?



# EN-3212 Electronics Worksheet 11

## Logic Gates

Now, think about this circuit:



It's not easy to figure out what this is doing, but if you can sort it out, you're on your way to truly understanding the interface between the world of the analog and the world of the digital.