Follow along with the test and analysis of the overall circuit for Project 2 by completing this worksheet.
Submit your completed worksheet to your instructor at the end of Studio.

1. Press the Reset button. The counter should display the value **01**.

No

Yes

Does the counter go to the correct value? (Circle one)

1. Slowly repeat pressing the Next button. The counter should display the values **02** to **24** in sequence.

Record any values that appear out of sequence in the table(s) below.

|  |  |
| --- | --- |
| Expected Value | Observed Value |
|  |  |

|  |  |
| --- | --- |
| Expected Value | Observed Value |
|  |  |

If one or more values are incorrect, how can you identify which ICs are causing the error?

1. For the numbers from **01** to **24** listed below, do the following:
* Draw a circle around any number that is prime
* Draw a square around any number that is the product of (exactly) two primes

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** |
| **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** |

1. Reset the count to **01** and slowly repeat pressing the Next button. The two output lights should identify numbers that are prime or the product of two primes.

Mark any numbers that have the incorrect lights displayed by drawing an **X** over the number above.