5 - Binary Arithmetic

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| 1. **Perform Addition on the following Binary values** |
| 1. **b.1001 + 0110** |
| 1001 9 + 6  0110 + = 15  = 1111 |
| 1. **11100 + 111** |
| 11100  111 + 28 + 7  100011 = 35 |
| 1. **101011 + 101011** |
| 101011  101011 + 43 +  = 43 =  1010110 86 |
| **2. Perform subtraction on the following Binary values** |
| 1. **1011 - 1010** |
| 1011  - 1010  ------  1 |
| 1. **1100 - 1010** |
| 1100  - 1010  ------  10 |
| 1. **11001 - 1011** |
| 11001  - 1011  ------  1100 |
| 1. **10001 - 111** |
| 10001  - 111  ------  1100 |
| **3. Perform multiplication on the following Binary values** |
| 1. **1010 \* 10** |
| 1010  x 10  ------  10100 |
| 1. **1100 \* 11** |
| 1100  x 11  ------  1100  1100  ------  11000 |
| 1. **1010 \* 110** |
| 1010  x 110  ------  10100  1010  ------  111100 |
| 1. **11100 \* 1010** |
| 11100  x 1010  ------  0  11100  0  11100  ------  11111000 |
| **4. Perform division on the following Binary values** |
| 1. **1010 / 10** |
| 1010 ÷ 10 = 101 remainder 0 |
| 1. **1100 / 11** |
| 1100 ÷ 11 = 100 remainder 0 |
| 1. **10110 / 110** |
| 10110 ÷ 110 = 110 remainder 10 |
| 1. **111001 / 101** |
| 111001 ÷ 101 = 1101 remainder 0 |