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Intro to Computing

Chapter 6 Review Questions

1. Convert 0010 1100 to a decimal.

44

1. Convert 0010 1100 to hex.

2C

1. Convert FFF to decimal.

4095

1. Convert FFF to binary.

111111111111

1. List the main achievements of the following computer giants:

* **George Boole**
  + He discovered Boolean algebra. We use this in CS with Boolean logic of true and false.
* **Augustus De Morgan**
  + De Morgan’s Law. (A ∪ B)’ = A’ ∩ B’ and (A ∩ B)’ = A’ ∪ B’.
* **Claude Shannon**
  + The father of information theory. Described the Boolean gates. Built the first machine learning device.
* **John Atanasoff**
  + Built the first digital electric computer.
* **John Mauchly**
  + Electronic Numerical Integrator and Computer and Electronic Discrete Variable Automatic Computer.
* **John Von Neumann**
  + Von Neumann algebra. Lattice theory, the theory of partially ordered sets.